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ORIGINAL ARTICLES.

GASTRIC DISTURBANCES CONSEQUENT UPON INFLUENZA.*

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Few acute diseases are more prone to disturb the stomach than is influenza, and the special disorders that it occasions are, for the most part, to be classed among the gastric neuroses; although catarrhal conditions may, not infrequently, result during, as well as following, the course of the fever. Perhaps few diseases exhibit so much variety in the manner of onset, the symptoms, or the duration as does la grippe; scarcely two cases having the same clinical manifestations. For the sake of clearness and classification, however, cases of influenza have been divided into three groups, viz. :—(1) the respiratory, (2) the nervous, (3) the gastro-intestinal.

Cases of gastric disturbance consequent upon influenza more often follow the nervous than the gastro-intestinal type of the disease, and disorders of the stomach following influenza are most commonly seen associated with many symptoms of neurasthenia. In some cases it may be observed that neurasthenia existed prior to the attack of influenza and was very much aggravated by it.

A great variety of gastric symptoms are complained of by those suffering from the effects of influenza, but among the many a few only are tolerably constant. One of these is persistent anorexia, if that may properly be called a gastric symptom. This anorexia starts during the fever and general disturbance of influenza and the appetite does not return. It sometimes lasts for months and is accompanied by a sense of weakness, some insomnia, despondency, and perhaps some constipation. Food is taken only from a sense of duty while the patient declares she never experiences hunger. Occasionally this symptom is attended with a loathing for food and some nausea after food is taken. The tongue in these cases is often coated with a yellowish-brown, thick fur which is quite adherent. The skin is muddy, the urine is highly colored, scanty and hyperlithuric. There is more or less dull headache, and a constant feeling of extreme lassitude, weariness and torpor. Ambition is lost and every day is dragged out in monotony. It will readily be seen that these symptoms are very common in that state of perverted nutrition called "lithemia" and indeed one seldom sees more pro-

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nounced lithemia than just in these cases. In some instances the specific gravity of the urine reaches as high as 1040, while the uratic sediment after the urine has been standing some hours is very large. The pulse is, as a rule, tense, slow, and infrequent, and it is interesting to observe sometimes in spare individuals with flabby muscles that the apex beat is very diffuse and is carried to the left as far as the nipple line. The slowness of the pulse wave in these cases is then accounted for by the sluggish, lax, unwilling contraction of the weak myocardium coupled with the marked arterial tension. Ordinary appetizers, such as cinchona, gentian, or strychnine are usually wholly ineffectual in restoring appetite until the bowels have been freely opened and kept open with Carlsbad salts or some other saline, while pure water and alkalies with exercise in the fresh air and sunlight are insisted upon. Indeed active elimination in these cases will frequently restore appetite in the absence of all medicines, other than laxatives and alkalies.

In other cases anorexia is largely of a nervous character (anorexia nervosa), and is most effectually overcome by asafœtida, valerianate of zinc, phosphorus or other nervines, with hydrotherapy or electricity. A few instances of anorexia occur as the result of irritation to a hyperesthetic gastric mucous membrane (anorexia ex hyperesthesia), as for instance from hyperchlorhydria, and may be improved by gastric sedatives, such as the subnitrate of bismuth combined with the light carbonate of magnesia.

Epigastric weight and distress accompanied by active eructations after meals are the most troublesome symptoms in some cases. Belching is the source of great annoyance in these instances, being accompanied by cardiac palpitation and a distressing sense of suffocation. Direct examination of the stomach in a large proportion of these cases reveals nothing abnormal as regards the gastric chemistry. In a moderate number of cases HCl is present in a little more than the normal percentage, or the total acidity from combined and free HCl of the gastric contents is raised above the normal limit, thus accounting for the epigastric discomfort so often experienced. It is not easy to say whether or not gastric catarrh exists, as it may be present without the gastric contents containing any more mucus than is ordinarily seen present in conditions where we have no reason to suspect the existence of catarrhal gastritis. If, however, the stomach contents and the wash-water contain an excessive quantity of ropy mucus that is in all probability not buccal (swallowed), nor pharyngeal, nor œsophageal, it is reasonable to conclude that the gastric mucosa is in a condition of subacute inflammation and is secreting an excessive quantity of mucus under the constant stimulation of superacid stomach contents. No doubt in some instances catarrhal gastritis results during the acute stages of the disease and is perpetuated for some time thereafter. This is especially probable in influenza, the toxin of which, whatever its peculiar nature, is prone to cause inflammatory reaction in mucous membranes and in nerve tissue. Until, however, the gastroscope is perfected and brought into more extended use it will be impossible to say just how much gastric catarrh exists, or what is the exact state of the mucous membrane of the stomach. In the absence of determining causes of catarrhal gastritis, such as gastrectasia, gastric carcinoma, tuberculosis, nephritis or alcoholism, it is often a mere assumption to make a diagnosis of gastric catarrh.

The specific pathogenic microbe of influenza is not yet agreed upon by all investigators. Some attribute the disease to Pfeiffer's bacillus, while others think it is caused by a diplococcus or a streptococcus, or by micro-organisms normally present which assume especial virulence under some undetermined influence.

Without doubt, however, influenza is a violent, acute and prostrating infection, and the toxin produced by the specific microbe has a notable tendency to cause among other symptoms most intense neuralgias. A. Claus (*Brit. Med. Jour.*, April 20, 1895), thinks these neuralgias are the result of nerve congestion or actual neuritis. Rachialgia and headache are very common examples of neuralgia in influenza, but gastralgia is not very uncommon. Usually, however, gastralgia is a later manifestation, supervening after the subsidence of the acute stage of the disease and persisting

for some weeks or, perhaps, for months. Not infrequently the patient recites the history of having been free from gastralgia or other stomach trouble until attacked by influenza, which seemed to initiate all their symptoms.

The writer treated a lady three years in succession during annual attacks of influenza, and after each attack gastralgia manifested itself in a marked degree, but was effectually overcome by the intragastric use of the continuous current. The gastralgia consequent upon influenza is generally a pure sensory gastric neurosis, as is evidenced by the exclusion of other possible causes of the pain and by the analysis of the stomach contents, as well as by the subsequent behavior of many cases. The stomach contents in these cases have repeatedly been found to contain the normal percentage of free HCl by Mintz's method, while the bound HCl has been normal. Lactic acid is occasionally present, especially after the ingestion of much lactic, acid-bearing food, but this is the case in perfectly healthy stomachs. After Ewald's test breakfast, however, lactic acid is almost always absent. The volatile acids formed by fermentation of the gastric contents, acetic and butyric, are absent after the test-breakfast. Indeed the chemistry of the stomach is correct, and there is nothing to be discovered by the direct examination to account for the gastralgia. There may be associated with the pain in the stomach more or less severe nausea and vomiting at variable periods, under which circumstances phosphaturia is not infrequently seen, and other symptoms of a disturbed nervous system are not wanting.

These neuro-gastralgias are most promptly relieved by treatment directed toward improving nervous tone and equilibrium, while combating any accompanying anæmia (which nearly always means toxæmia), that may be present. Therefore asafœtida, phosphorus, strychnine, iron and arsenic, one or more may be given, while the galvanic current may be applied within the stomach about three times a week. A very nutritious and non-stimulating diet is called for in conjunction with all those measures so well known and so commonly practised in the treatment of neurasthenia.

Sometimes a certain definite secretory neurosis, such as hyperchlorhydria, results from influenza. This nervous disorder of the stomach is usually attended by symptoms of pain three or more hours after meals and about two hours after midnight, at which time the stomach contents have passed into the duodenum, and the sensory nerve filaments in the gastric mucosa then feel the irritation of free HCl (supersecretion), which continues to be secreted, notwithstanding all food has left the stomach and gastric digestion is at an end. Besides pain a gnawing, sore, or burning sensation is often felt in the epigastrium, and many patients with hyperchlorhydria describe intense hunger between meals or in the night.

The gastric chemistry in hyperchlorhydria is interesting in other respects than the mere presence in excess of HCl. Lactic acid is usually absent when tested for by the Uffelmann's reagent, and also by the more reliable and elaborate method devised by Boas and practised in this country by Stewart, Friedenwald and others, in which iodoform is produced in the presence of lactic acid. The albumoses are present, and peptone is usually present in moderate amount. Starch digestion is quickly arrested, owing to the high acidity of the stomach contents.

The hyperchlorhydria following influenza usually conforms to that type of this neurosis characterized by its instability. At one time HCl is present in supernormal amount, while the following day it is secreted in moderate quantity only. This behavior of the neurosis suggests the explanation that the gastric secretory innervation is erethistic and easily thrown into excessive functional activity by external influences such as worry, or by over stimulating ingesta, or reflexly by peripheral irritation, as from eyestrain. In some instances the writer has seen HCl drop from 0.40 per cent. to 0.18, or thereabouts, in one day in the transient hyperchlorhydria consequent upon influenza. With gastroxynsis there may, of course, be associated one or more of the motor neuroses such as regurgitation, eructation, vomiting, or relaxation or spasmodic contraction of the pylorus or cardia. Also in the disturbed general nervous state of these

patients it is not surprising that some of the rarer sensory neurosis appear temporarily, as for instance, parorexia or hyperorexia.

Following influenza, especially in persons who were constitutionally weak before its onset, a certain syndrome usually results. There is anæmia, depression of the nervous system and a weak circulation. These are accompanied by hepatic torpor, renal insufficiency, and gastro-intestinal toxæmia, while constipation aggravates the condition. When this internal morbid cycle exists, the gastric functions are soon depressed and a persistently lowered secretion of HCl eventually comes about. This hypochlorhydria is, in most cases, accompanied by some degree of motor insufficiency, in so far as to lengthen the time intervening between the ingestion of food and its complete passage into the duodenum by from one to several hours. Free HCl may be wholly absent in the stomach, and this achlorhydria may account for a portion of the fermentation arising in the stomach and in the intestine; combined HCl not being as effectual as free HCl in arresting the action of fungi and bacteria. This toxæmia is increased rather than lessened so long as the emunctories of the body remain sluggish.

The treatment of the irregular hyperchlorhydria above mentioned, differs somewhat from that obtained in hyperchlorhydria of the persistent type, as for instance, that occurring in a strong man between forty and fifty years of age, preceding or accompanying gastric ulcer. In the latter case sedatives to the nervous system and to the stomach are demanded, while strychnine usually aggravates the condition; in the former case, nerve balancers, such as phosphorus and strychnine, do good, while gastric sedatives are called for only in moderate doses and irregularly. Aside from this distinction, the local and general treatment of hyperchlorhydria in this connection does not differ materially from that occurring under other circumstances. It includes the correction of eyestrain, the amelioration of utero-ovarian abnormalities, if they exist, and so on.

In the treatment of the syndrome, in which hypochlorhydria plays an important part, it is necessary to keep the skin and bowels acting freely and to administer HCl after meals, with increasing doses of tincture of nux vomica before meals. Condiments and plenty of salt may be used in hypochlorhydria, but they are contra-indicated in HC excess.

Constitutional treatment of the gastric disorders consequent upon influenza, takes first rank. The anæmia should be combated by the hypodermic administration of increasing doses of nuclein, as well as by giving iron, arsenic and strychnine.

If gastric atony exists with deficiency of HCl, the rocking-chair may be advised for fifteen minutes after each meal. It is recommended by Dr. Laine (Martinique, *Med. Week.*, January 18, 1895), and assists in emptying the stomach. A chair which allows a low decline is preferable.

The general circulation should be bettered by massage, with medical and Swedish gymnastics. If the heart is weak and irritable, its apex beat displaced a little downward and to the left, and the pulmonary semilunar closure accentuated, a course of four or five weeks of treatment by the Schott baths will be attended by signal benefit. The capillary circulation of the mucous membrane of the stomach will be improved concomitantly, with a better capillary circulation everywhere, while the sympathetic nervous system will be quieted and strengthened in a marked degree. Gentle mountain climbing, increased judiciously, is an excellent means of improving oxygenation and giving tone to muscle and nerve. It is to be advised for a patient who drags through the spring in a wretchedly uncomfortable and unhappy condition, following a severe attack of influenza during the winter. The seashore and the South have proved enervating for a number of the writer's cases, but, perhaps, it is only coincidence; these agree with some.

Finally, influenza is a most depressing disease, and we should be alive to the fact that its sequelæ as regards the heart and brain, are liable to be serious; as regards the sympathetic nervous system, the blood, the renal elimination and the stomach, the sequelæ of influenza are liable to cause obstinate suffering and disability, and to establish a chronic condition of autointoxication and invalidism.

AN ANTISEPTIC AND DEPLETORY VAGINAL TABLET, AND OTHER ANTISEPTICS.

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The writer has been experimenting some months with various substances in order to obtain a safe and satisfactory vaginal tablet for local use in leucorrhœa, inflammations, hyperesthesia, or in any condition requiring an antiseptic, astringent and depletory for the vaginal tract.

Medicated suppositories made with cacao butter were useful in some cases, but the fatty vehicle interfered with the action of the medicament in so many conditions that this substance was discarded. The use of gelatine for the same purpose was open to the same objection, although not to such a marked degree. A gelatine capsule gave better results, but was not practicable for extended use. The small amount of vehicle in the capsule commended it for emergency cases, and for substances unsuited for use in the tablet form.

In a tablet such as was sought for, corrosive sublimate and the chloride of zinc were manifestly unsuitable. Iodoform could not be used on account of its irritating properties as well as its odor. Iodol was not tried. Aristol in capsules acted very well in some cases, but was not suited to general application. Salicylic acid was too irritating. Bismuth subnitrate was not sufficiently active for use in the tablet form. Benzoic acid was not tried.

Now it is well known that oxygen is the great natural antiseptic, and that many substances are valuable as antiseptics only in proportion to the amount of this element contained in their composition and the readiness with which they part with it. Also that the greater the quantity, the more loosely is it held in combination. To this class of oxygen carriers belong potassium permanganate, potassium chlorate, and some others; also the essential oils and the camphors. As examples of the latter I may mention eucalyptol, the oils of cinnamon and gaultheria, thymol, menthol, etc. None of these were available, however, in a tablet for vaginal use, as, in sufficient quantity to be effective, they would be too irritating. They must be used in solution, and as douches. Carbolic acid, uncombined, could not be employed in a tablet for this purpose on account of its dangerous toxic and irritating properties, but the sulpho-carbolate of zinc was tried, in combination with the extract of white oak bark, the extract of hyoscyamus and boracic acid.

Boracic acid has long been regarded a valuable agent for use in the vaginal tract and elsewhere. Some surgeons pack the vagina with this acid in some conditions with good results. The sulpho-carbolate of zinc is a most valuable astringent and antiseptic; the extract of white oak bark is a reliable astringent, while the extract of hyoscyamus modifies the action of the other ingredients, being at the same time a safe anodyne.

The first formula used was:

Take of
Powdered extract of white oak bark . grs., 2
" " " hyoscyamus. . . gr., ¼
" sulpho-carbolate of zinc . . grs., 3
" sugar of milk . . . . . grs., 10
Mix, and make tablet no. one.

A tablet to be covered with plain vaseline and inserted into the vagina every other night at bedtime, preceded by a douche of warm water.

This combination produced a decided astringent and depletory effect, causing a profuse watery discharge, but it was too irritating for general use in the conditions for which it was intended. To obviate this, the zinc and acid were reduced one-half, and afterwards the extract of white oak bark in like manner, but the tablet was still too strong in effect. After repeated trials in varying proportions of these substances, without reaching satisfactory results, the acid and zinc were both rejected. Continued experimentation evolved the following formula:

Take of
Acetanilide . . . . . grs., 5
Powdered extract of white oak bark . grs., ½
" " " hyoscyamus . . . grs., ¼
" Sugar of milk . . . . . grs, 10
Mix, and make tablet no. one.

Cover with plain vaseline and insert into the vagina every other night at bedtime.

This acted most admirably as an astringent, depletory, antiphlogistic and anodyne, but it was not sufficiently antiseptic. The discharges were still offensive. To remedy this condition I used a preparation which I had seen mentioned in the medical journals, composed of essential oils and camphors, with boracic acid, made by Parke, Davis & Co., and called euthymol. One fluid ounce of this solution in a quart of water, used as a douche, every other night, just before inserting a tablet, rendered the treatment entirely satisfactory. The tablet is to be left in position, not being removed by the patient. It slowly dissolves.

I may add in this connection, that poultices are now regarded with disfavor, as being hot-beds for the propagation of micro-organisms, and are not used as frequently as they should be on this account. Add one ounce of euthymol to the water with which the poultice is mixed, and there will be no further cause for complaint.

Dr. Morton's experience with acetanilide in septic conditions induced me to try it in the tablet form, and its use in connection with the other ingredients in the proportions given above, by slowly dissolving in close contact with the parts, keeping them bathed with the depletories and astringents, and the douche removing debris and rendering the whole tract thoroughly aseptic, has been very satisfactory indeed. I may add that acetanilide alone, undiluted, proved to be too irritating. It was sufficiently aseptic in some conditions, but did not meet the requirements for general use.

EXTERNAL URETHROTOMY.

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In December, 1890, through the courtesy of the late Dr. A. J. Laubach, who had the case in charge, I was called in consultation and to assist in an external urethrotomy. The history of the case is as follows:

C. B——, aged twenty-eight years, and native-born; married; at the age of twenty-one had a severe attack of gonorrhœa, recovery from which could not be called complete. He said the discharge had not entirely ceased when he noticed a rapidly increasing difficulty in micturating. Then, for the space of a year, followed treatment for a troublesome stricture.

He underwent treatment by divulsion both slow and rapid, division, and with porte-caustic, until, finally concluding he was as well as he ever would be, he committed matrimony. His trouble soon began to develop. Coitus, always painful, was never followed by ejaculation of semen; the act, under the conditions, not being often repeated. His urine, at best passing in a dribbling stream and always causing considerable pain, would occasionally refuse to come at all. The first effort for relief would be to pass a catheter, usually under an anæsthetic, which would often start a flow emptying the bladder, but the catheter never passed into the viscus. When this would fail, as was often the case, resource would be had either to puncture through the rectum, or to supra-pubic aspiration. Both of these operations he had submitted to so often, that he began to clamor for an attempt at permanent relief. After perineal urethrotomy had been fully explained to him, and the probable result of the same, he consented to the operation.

The perineum was shaved and thoroughly washed with an antiseptic solution, and the patient fully anæsthetized. A grooved sound was passed down to the perineal portion of the urethra, but no amount of coaxing could make it go further. A free incision was made over its end, but the urethra seemed to terminate in a *cul de sac*. Discouragement reigned supreme. The sound was with-

drawn and an interesting search for the missing canal was instituted. Bougies, sounds, probes, and even the finest whalebone filiforms refused to discover the lost canal. Its place seemed to be taken by an irregular-shaped cicatricial mass about one and one-half inches in length and of varying diameter. The mass seemed perfectly impermeable; still there had never been any urinary fistula.

As our united efforts failed, Dr. Laubach now proposed, what, to me was a unique means, to discover the secreted remains of the urinary canal. It was to insert an aspirator needle into the bladder, then reverse the pump and distend the bladder. The suggestion was at once acted upon. A 2 per cent. solution of boric acid, at a temperature of 85°, was slowly pumped until seventeen ounces were injected. Then, slowly, drops, small and minutes apart, began to appear in the distal end of the cicatricial mass in the perineum. The distension was increased to twenty-one ounces, when through an opening which seemed too small to admit more than the finest thread, the water began to come in a stream which was so small it seemed like an almost invisible spray. Dr. Laubach, guided by this fine stream, with a sharp-pointed bistoury, carefully, slowly and tediously dissected down the entire length of the obstructed urethra, until a gushing stream of our solution mixed with urine, told him his efforts were rewarded.

The bladder was washed out thoroughly with an antiseptic solution, and a gum catheter was introduced through the wound and fastened by means of a suture in either lip of the wound, the thread piercing the catheter. The patient rallied nicely from his prolonged anæsthesia (over three hours). In his after history comes the remarkable part of my chronicle.

While he felt grateful for a perineal opening in preference to his old trouble, Dr. Laubach found, in a short time, that by healthy granulations encroaching upon the opening, it became difficult to remove and insert the short piece of catheter through the wound. He, therefore, made a successful effort to pass a silver catheter from the meatus to the bladder, guiding the point past the external opening without difficulty, and leaving it *in situ*. For some days the urine passed mostly through the perineal opening, but gradually the quantity coming through the catheter increased, and when it was removed and a gum catheter inserted (which was done without difficulty), no more urine was discharged through the wound.

Dr. Laubach kept him under close observation for nearly a year, occasionally removing the catheter for a few days and replacing it for a day or two at a time. Then he discharged the patient, after equipping him with a complement of urethral sounds, and instructing him carefully in their use.

Within a year and a half after the operation, he could have intercourse with his wife, as he says, "Just the same as before he had the first attack of gonorrhœa." To prove it, two and one-half years after the operation, his wife gave birth to a well-developed and apparently healthy son, who is now living, the picture of health and vigor. The wife is now *enceinte* for the second time.

As for the patient himself, he is a locomotive engineer by occupation, and has not been obliged to lose a day's labor since going to work after the operation. He uses the sound with religious regularity. He says he sometimes has quite a little smarting, and, at long intervals a slight discharge from the urethra of a glairy, mucous character.

Of two hundred and twenty-four persons treated for rabies by Pasteur's method at St. Petersburg last year, only three died of hydrophobia; two of these deaths occurred during the treatment, before the inoculation had had its full effect, the other was of a patient brought in thirteen days after he was bitten. The rabid animals were one hundred and ninety-three dogs, eighteen wolves, seven cats, five horses, and one pig. At Odessa, nine hundred and eighty-four persons were inoculated, the death-rate being only one-third of one per cent. One case is recorded of a patient who had been severely bitten by a mad dog; the wounds were cauterized within three hours of their infliction, and he was afterwards inoculated, but he died of hydrophobia just a year after the inoculations.

COMMUNICATIONS.

BICYCLING.

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While the evolution of the bicycle from its primitive state to the present condition of beauty and usefulness has taken nearly a century, the advent of the modern wheel is so recent that the literature on the subject is extremely meagre. This is especially true in its relation to women, they having adopted it only within a comparatively short time. A great deal that has been written and said has been from a purely theoretical standpoint. Thus, many of the evils prophesied for this pastime practically do not materialize, while many evils that the bicycle is apparently responsible for cannot in fairness be charged against the wheel, but are due to the ignorance or foolhardiness on the part of the riders. On the other hand, the over-enthusiastic have claimed results so extravagant that they are not likely to be fulfilled. It is the aim of this paper to criticise some of the "pros" and "cons" met with in current literature, it being felt that the future of the bicycle, as far as women are concerned at least, will depend largely on the verdict of the gynæcologist.

The pleasures derived from riding are so great that an unfavorable verdict should not be arrived at without due deliberation.

A well-known specialist is reported as saying that "Ten years hence women will have sorrow in their hearts because of the bicycle." This quotation, together with an editorial in the *New York Journal of Gynæcology and Obstetrics*, caused the writer to undertake this paper.

"Where professional opinion has found public expression, it has usually been adverse to the adoption of this practice (bicycle riding) by women. No one will probably hesitate to say that for women who have any form of pelvic disease or abnormity, especially if it be of a recent or acute character, bicycling would have a distinctly injurious effect. The pathological influence of the pedal-serving machine, which excites muscular action similar to that involved in the use of the bicycle, is too well-known and appreciated to permit any sane man to encourage the latter among his gynæcological patients who are suffering from pelvic inflammation. To married women also, before the menopause, it will always be guardedly advised by every honest practitioner, because of its liability in common with every form of violent exercise, to produce abortion."

In the first place, I believe that medical opinion is not usually adverse to the adoption of the bicycle by women. On the contrary, it has been generally endorsed, not only by the general practitioner, but by gynæcologists in every country in which the wheel has been much discussed.

The comparison of the sewing-machine to the bicycle, which is a favorite argument, is certainly open to severe criticism. A woman sitting erect on her wheel, with the leg stretched to its fullest extent at every revolution of the pedal and the thigh never brought high enough to make even a right angle with the trunk, with blood coursing evenly through every part of her body, and taking deep inhalation of fresh air, is a very different picture from the woman, indoors, bent over a sewing-machine, the body at an angle of fifty degrees with the thigh, with resulting congestion of the genitalia, and circulation stasis in the lower limbs. These are the conditions most favorable to pelvic congestions and uterine displacements, and at the sewing-machine are generally enhanced by the corset-steel digging into the abdomen.

If women be taught to ride with the

saddle high and well forward — the healthful as well as the graceful position —every semblance to sewing-machine action is done away with.

The point which refers to married women is not well taken, because bicycling is not violent exercise, at least it should not be. It is unfortunate that so many writers have no practical experience, and get their ideas from watching riders on the race-track, or the numerous class of individuals on our streets, who certainly do make violent exercise of it.

I have found that many women who, during the first months of pregnancy cannot walk any distance without the greatest discomfort, are able to ride many miles with greatest ease and enjoyment; while to an expert rider on a good, quiet road, the danger of an accident is practically no greater than it would be in a carriage.

The *Boston Medical and Surgical Journal* for September 6, 1894, propounds the question "Should women ride a bicycle?" and in answer is given the opinion of a prominent Paris physician:

"To form an accurate opinion, the age, the weight of the woman, whether she can ride without falling off, the clothes she intends to wear, the condition of her digestion, must be ascertained. A woman young, quick, and not too clumsy or fat, may ride longer distances than one without these advantages. An important consideration is the appearance of the rider. Her self-possession and general feeling of well-being are improved by an appropriate dress. . . . As a general rule it should be insisted upon that corsets should be discarded if it can be done without prejudice to the fit of the dress."

This is a sample of current bicycle advice of another form, and is simply begging the question. Age and weight, within ordinary limits, have very little to do with it. Any woman can learn to ride without falling off, unless she is blind or paralyzed. However bad her digestion the bicycle, like any other general exercise, must improve it. It goes without saying that the woman young and quick can ride farther than one clumsy and fat. But this is no reason why the woman inclined to adipose should not be encouraged to ride. Although she cannot ride long distances, she will derive more benefit than her slim sister who can.

The point as to her appearance is well taken. A woman will wear and feel best in what she knows looks best, whether her physician approves or not. Every woman should ride in loose corsets; but that a woman who has always worn corsets should ride without them, is utterly impracticable. She could not, if she would.

By far the greatest danger in wheel exercise relates to the heart; but it will be observed that trouble in this quarter arises invariably from injudicious riding. Petit, in 1894, was the first to call attention to this danger, when he reported to the French Academy of Medicine three cases of sudden death in patients with heart disease, due to bicycle riding. The first, a man sixty years old, undertook to ride long distances, not knowing he had organic heart trouble. The second was an individual with cardiac trouble, recently recovered from typhoid fever. The report gave rise to a discussion, and Dr. Halopeau insisted that bicycling presented no danger peculiar to itself—or beyond the danger common to any form of exercise —and argued that even invalids and old people could use it with benefit.

Beyond doubt, the bicycle should be forbidden in non-compensating aortic insufficiency and in mitral affections, but there are forms of heart disease in which the compensation is good, in which the *prudent* use of the bicycle is not injurious. The great danger in these cases would be in the learning, during which a great deal of exertion is unavoidable.

Petit's typhoid case comes as a timely warning. After typhoid, patients are liable to such parenchymatous degeneration that we must warn the greatest caution at this time, whether there be any heart lesion or not.

Probably the most exhaustive article on cycling as a cause of heart disease is a paper by Herschell before the VIII International Congress of Hygiene and Demography, at Budapest. His deductions were drawn, as he himself states, from excessive cycling, such as climbing long hills and riding long distances at a high rate of speed. He divided the

effects into: (1) simple hypertrophy; (2) acute dilitation; (3) chronic valvular disease; (4) functional derangement.

With regard to the first, we can often find, if we carefully examine the hearts of individuals who have ridden a great deal, a slight cardiac hypertrophy without dilitation. But it is a question if this is not a physiological condition rather than a pathological. Dr. S. M. Hammond examined fourteen who had ridden from five to thirteen years, and covered distances from 5,000 to 27,000 miles, and found simple cardiac hypertrophy without dilitation in ten; and in all, a breathing capacity far in excess of the average man. He considers hypertrophy, in this sense, a purely relative term, and that this condition of the heart observed in most persons who have ridden to any extent, will gradually become common, and, finally, will be accepted as normal, and what is known to-day as a normal heart, will be considered degenerated. This idea is apparently endorsed by Champonniere, who has given protracted study to French wheelwomen. He considers the heart of the average woman is usually deplorably below par, and cycling so completely restores it as to "leave nothing to be desired."

With regard to the other three heads in Herschell's paper, anyone will admit that such could never occur from ordinary riding. The long-distance road race, twenty-five, fifty or one hundred miles, so prevalent at present, ought to be a prolific source of acute dilitation, particularly when many of the riders in those races are not professionals, or even accustomed to such a tremendous strain. In a case of death from acute dilitation of the heart, reported in the *London Lancet*, a man, aged forty-six, lately taken to cycling, rode fifty-three miles from London to Brighton, against time, on a very heavy wheel. He died the same night. It should be the duty of physicians to point out the dangers of too much hill-climbing and long-distance riding at top pressure. It is a good rule to remember that as long as a cyclist can breathe with the mouth shut, he is perfectly safe as far as heart strain is concerned.

Herschell's account of the mechanism by which acute dilitation can become converted into permanent vulvular disease or functional heart trouble, is interesting.

The permanent enlargement of the respirating field, observed in bicylists, with the consequent increased absorption of oxygen, must affect the tone of every organ in the body, and the resisting power of the organism must be vastly increased. The benefit of this cannot be over-estimated, particularly in incipient lung trouble, prone to tissue degeneration where so much depends on the power of resistance.

It has been argued that the position assumed in bicycle riding contracts the chest and deforms the spine. I have not been able to find one authenticated report of such a result. Even professionals, who are continually racing in the curved position, are erect and have a chest capacity enormously in excess of the average man, as has been shown by Marvy of Paris, and many others who have made a scientific study of the physique of professional riders. The "*Journal de Medecine et de Chirurgie Pratiques*," says: "The general opinion that the bicycle curves and deforms the back of young subjects, is absolutely false." I do not mean to defend in any the ridiculous position seen so often on the streets. It would seem that such a position cannot but be as injurious as it is ungainly. It is meant to imitate, but does not succeed in the least degree, the graceful curves of the first-class professional. There are a certain number of men who are fitted by nature for trials of strength, speed or endurance; others permanently injure themselves in the effort to emulate them. Women, fortunately, do not enter into these contests, and they at least try to ride in the upright position.

While on this subject one naturally comes to the charge that the cycle develops only the lower extremities. I agree that the leg muscles are certainly most developed, but not at the expense of the rest of the body. The muscles of the thighs and pelvis are in constant activity. All the muscles of the back, as high as the neck, are constantly in use to balance. The muscles of the arms are used in climbing hills and riding fast, and we know that muscles develop better by repetitions of slight contractions rather than by excessive contractions.

That young persons may acquire a lat-

eral curvature of the spine, like that produced by leaning over a school desk, as has been asserted, is manifestly absurd. The regular parallel contractions of the cyclist could never lead to such a result.

The serious objection has been raised that bicycle riding might engender the habit of masturbation in young girls. There has been considerable discussion on this subject. So far as I know it has been on purely theoretical grounds. Women suffer no inconvenience from the saddle aside from the discomfort occasioned in the early days of learning. It is only in very rare instances and in abnormally susceptible women that any erotic sensations are complained of. Even in these cases the fault lies in the position of the saddle. If it is tilted back far enough, instead of riding on the perineum, the woman rides on the tuberosities, as she should, and this question need never be brought up. Beyond a doubt, however, the bicycle saddle is susceptible of much improvement.

A most fanciful objection is the idea advanced that constant cycling for women would increase the size of the iliac and psoas muscles, thus diminishing the superior strait and 'presenting an obstacle in future parturition. These muscles are flexors and are comparatively little used by the cyclist. The extensors not only drive the machine, but practically lift the opposite leg on its pedal, and, as Dr. Egbert of Philadelphia has shown, the extensor muscles would have to become enormously developed before such a condition could occur. He shows that only a pelvis very narrow transversely could excuse forbidding cycling on this ground.

There can be no doubt that any acute inflammatory trouble would utterly bar cycle riding; so would a lack of perineal tissue, with its accompanying condition of prolapse, but to say that *any* form of pelvic disease is increased thereby is not according to the facts. The increased tone and vigor which is generated in every part of the body by this pastime, must necessarily be felt in the pelvic organs. By the proper use of the wheel I have seen many local congestions clear up and the natural resiliency of the tissues return. I have known many of those unaccountable pelvic pains so many women suffer, to disappear and return no more; and I believe that many an old pelvic adhesion is broken up under the gentle muscular exercise and light, tremulous vibration of cycle riding. I firmly believe that there never has been another form of exercise so well adapted, or that is doing so much for women as bicycle riding. I know women who could not be induced to go in for any form of outdoor exercise to take up the wheel, and stick to it one year after another, to the great improvement of their physical condition. For that small army of women who belong to the neurasthenic and hysterical class there is nothing comparable with it.

There is an exhilaration that goes with this exercise of speed, which, combined with gentleness, makes it an ideal exercise for women. Without this exhilaration exercise becomes work, and work is not exercise in a medical sense. English women walk a great deal—they walk for the pleasure of walking and derive untold benefit from it. The wheel is no improvement over this kind of walking as a general exercise. But American women will not walk, at least not for pleasure—and the wheel has great benefits over the walk for duty's sake.

Fortunately nearly all take to the wheel and it is within the reach of the great body of women. It has neither the expense of such exercise as horseback riding, or the difficulties of place which govern others, like tennis, golf, or bowling. Exercises like these in which women participate, can only be indulged in suitable localities, and most of them only by daylight. Thus they affect only the few and cannot be far-reaching in their results. The wheel, on the contrary, is ready at any time, day or night, depending on nothing except the weather. So universal has it become that it must have a marked effect on the coming woman, and the effect is going to be good. Probably Champonniere is right when he says he can pick out infallibly the wheel woman from her sister as they cross the street. The one proceeds with self-confidence, grace and ease, while the other backs, dodges, loses her head and invites disaster.

Dr. R. L. Dickerman in the January number of the *American Journal of Obstet-*

rics, so aptly expresses my ideas that I cannot do better than quote him.

"When there is no acute inflammation bicycling will probably show itself capable of large results as an agent in curing pelvic disorders. Through it we may look for freer dress, better exercise, for out-door activity, for studies, nerves, strength, muscles, for painless periods and for easy labors."

Although favorable to cycling, the decision of the French Academy, that no one should ride a wheel without consulting a physician, was perhaps brought about by Petit's three cases of sudden death already reported, and by many would be thought unnecessary. It would certainly prevent the repetition of such accidents in unsuspected heart trouble. But the greatest benefit from consulting a physician would be in the case of lady riders. A little timely advice would often save them a great deal of subsequent annoyance and disaster. Those with certain acute pelvic trouble could be warned in time, and others informed as to their line of safety. All women should be informed that they cannot ride with impunity during the menstrual period. They should be shown the danger of climbing long hills, or riding long distances, or high rates of speed, and also that to derive benefit from cycling they must ride in the upright position, with the saddle high up and well forward, tilting it back so that they ride always on the tuberosities.

The present fashionable craze for riding will undoubtedly diminish, but there will never come a time when women will not ride a wheel, and it will permanently occupy a prominent place in rational therapeutics.

AN AGE OF ADULTERATION.

Commissioner Wells, of the dairy and food department of Pennsylvania, has made a comprehensive investigation of food products with reference to the presence of adulterations. Among those which he found sophisticated are the following:

Allspice, which often is mainly composed of ground and roasted cocoanut shells; baking powder; beef, wine and iron, prepared as a tonic; butter, buckwheat flour, candy, catsup, cider, cheese, cinnamon, cloves—the latter made almost entirely from ground cocoanut shells, the odor and taste of cloves being scarcely perceptible; coffee, consisting chiefly of coffee screenings or damaged coffee, but sold at a high price as a pure article; fresh "Java" made from wheat and barley hulls, roasted with sugar and containing no coffee; codfish not codfish at all—merely cheap dried fish; cream of tartar, adulterated with flour; flaxseed adulterated with starch; fruit "butters," such as apple butter, peach butter, etc., very seldom pure, being adulterated with starch waste and salicylic acid; the same is true of grated pineapple; ginger, adulterated with ash, rice hulls, rice flour, and cayenne pepper; lard, maple syrup, made from commercial glucose, thinned with about 20 per cent. of water; mixed spices, orange juice, lemon oil, lemon phosphate, molasses, mustard, olive oil, pepper vinegar, vanilla extract, all kinds of preserves, extract of strawberries, and tea. To add to the deception a few apple seeds are scattered through the so-called fruit jams, or timothy or other seeds are added to the mixture to represent raspberry, strawberry, etc.—*Milwaukee Wisconsin.*

Shows Her Home Training.

A Bostonian of mark has lately distinguished himself greatly, and letters and telegrams of congratulation have been pouring in upon him from various parts of the world. These have been the subject of conversation at the breakfast table, and the Bostonian's little daughter has heard of them. The other day she said to her mother, with a pathetic air of concern, "Mamma, do you suppose all those people would think so much of papa if they knew that he sometimes puts his elbows on the table?"—*Boston Transcript.*

CAUSATION AND EARLY TREATMENT OF MENTAL DISEASE IN CHILDREN.*

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This paper is intended to deal with the physical causes which underlie the mental defects of the young. I hope to demonstrate that a very large responsibility antedates their admission into institutions for the feeble-minded, and rests on no one as heavily as on the family physician. It has long been held that mental enfeeblement in children, in the vast majority of cases, was purely non-development of the nervous centers; and this view has been quietly accepted by the general profession and the public at large. Many a family with a clean history of mental health, when a bright child has suddenly changed and mental growth has ceased, perhaps after some slight illness, or perhaps after no noticeable physical disturbance, cannot view the misfortune in the same way as they would look on an injury to a limb or any bodily organ; but feel it as a reproach.

Year by year, as opportunities for studying the clinic and pathologic history of these unfortunates increase, it is more apparent how largely their infirmity results, as the residual effect of acute disease. It is to such cases; the diseases which most frequently leave such lasting and serious effects, and the brain changes they induce—with some suggestions regarding their early treatment, that I ask your attention for a few minutes.

The various forms of agenesis, though interesting, we may pass without comment. The laws of heredity are entirely beyond our control; and the marriage of the unfit, with offspring certainly destined to become a burden, is scarcely less so under our present social conditions. The census of 1890 showed over 95,000 feeble-minded in our country, and their number at present will approximate and probably pass the 100,000 mark. This great number may be roughly divided into cases of primary imperfect development, and into what may be looked upon as a juvenile dementia, the result of destructive change in the brain tissue. The development of the brain may be retarded by disease in early years. The growth of the organ in the first years of life is exceedingly rapid. Tuczek, basing his statements on investigations by Huschke and Bischoff, estimates the daily increase in the size of the brain, during the first year of life, as more than one cubic centimeter. Dr. Robert Boyd estimates the brain weight at birth, ten ounces to eleven and one-half ounces. In thirty-four children between one year and two years, it averaged thirty-two and twenty-five one hundredth ounces. Between two years and four years thirty-eight and seventy-one one hundredths ounces. It will be readily understood that any interference with nutrition in this period, if continued for some weeks, as it might be by any disease, would be apt to leave its permanent mark on the growth and full development of the organ. This theory is borne out in fact. In seventy-five brains taken from all classes of feeble-minded children, I found the average weight only thirty-eight and three-tenths ounces. It is rare to find their brain above forty-five ounces in weight, and when it is so found it is generally in cases where the mental defect developed in the later years of childhood; in children when the mental trouble is very slight, or in low-grade cases with cerebral hypertrophy. In only eight of my cases was the patient under ten years old. Such cases are not to be classed with cases of congenital non-development, which, being an inherent fault in the brain, cannot be combated as can the condition just described. With congenital or prenatal arrested development, we may class victims of convulsive attacks, which appear before the beginning of dentition. Also cases

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of injury from prolonged labor or forceps pressure; and they are by no means few. No intelligent physician would apply injudicious pressure on the thin skull and soft brain of the infant, except to avoid still greater danger; on the careless or unscrupulous operator all warnings are wasted. It would be unwise to pass over all forms of imperfect development as beyond the reach of medical skill, without some allusion to craniectomy for the relief of microcephalus from premature ossification of the bones of the skull. This operation has, of late, been performed several times; and, from a surgical point of view, successfully. From my own observations, I am strongly of the opinion that the small skull is the *result* of the small brain rather than the *cause*. Evidence of pressure I have never seen, except in one case. The true value of the operation can only be determined when a sufficient number of operations have been performed to make an intelligent comparison with cases who owe their improvement to school training alone, which is often very successful in such cases, unless sclerosis accompanies (or perhaps causes the retarded growth).

With all these omissions, the number of cases where brain lesion and consequent mental enfeeblement appear and originate in easily recognizable disease, at any age when medical treatment may be intelligently pursued, will be found to be very large.

Through the courtesy of authorities at the Elwyn School for the Feeble-Minded, I have been able to examine 1,000 histories from their records, choosing those series of cases which contained the most cases under my own care during my eight years' residence in that institution; which, by knowledge of the children and their friends, I had excellent opportunity for verifying.

I have omitted all cases where direct heredity could be traced, when the infirmity appeared to be congenital or the result of accident at birth, or where spasms occurred or lack of ordinary intelligence was noticed before the age of six months, and when the patient was too young to decide as to his intelligence at the onset of the alleged causative disease; regarding such cases as possibly congenital. I have declined to count any case said to be due to traumatism, unless spasms, paralysis, or other symptoms of nervous shock directly followed the accident.

Notwithstanding this careful pruning, no less than 322 cases out of the 1,000 appear to have been the direct result of disease which would ordinarily need and receive the physician's care. Quoting figures like these at the International Conference of Charities at Chicago last summer, a foreign representative asked: "What are the doctors doing in these cases?" A question I did not attempt to answer.

The following table will show the relative frequency of the diseases in which the cerebral mischief appears to originate, and the age of onset:

	6 months.	6 to 12 months.	12 to 18 months.	18 to 24 months.	2 to 5 years.	5 to 10 years.	10 to 15 years.	Unknown.*	Total.
Spasms of dentition	2	29	25	19	...	...	...	...	75
Traumatism	3	10	2	4	20	6	3	3	51
Cerebral inflammations	5	3	8	3	14	2	4	3	42
Scarlet fever	2	2	3	3	15	9	1	7	42
Epilepsy of unknown origin	...	...	...	...	10	3	5	2	20
Mental shock (fright)	...	1	1	...	4	2	2	1	11
Gastric and typhoid fever	...	...	1	1	5	1	1	...	9
Whooping cough	1	1	1	1	4	...	...	1	9
Measles	...	2	2	1	2	1	...	1	9
Exposure to heat (sunstroke)	...	...	1	...	3	1	1	1	7
"Fever" (form unknown)	1	...	...	1	8	3	...	...	13
Cholera infantum	...	1	4	...	...	...	...	1	6
Small-pox	...	1	1	...	...	2	...	1	5
Malarial fever	...	2	1	...	...	1	...	...	4
Infantile paralysis	1	1	1	...	...	...	...	...	3
Diphtheria	...	1	1	1	...	...	...	...	3
Vaccinia	...	1	...	1	1	...	...	...	3
Marasmus	1	1	...	...	...	...	...	...	2
Catarrhal fever	...	2	...	...	...	...	...	...	2
Abscesses	...	...	1	...	1	...	...	...	2
Exposure	...	...	...	...	1	...	...	...	1
Erysipelas	...	...	...	...	1	...	...	...	1
Poison (Wild Lilac)	...	...	...	...	1	...	...	...	1
Self abuse	...	...	...	...	...	...	...	1	1

It will be seen that convulsions, occurring within the period of dentition, heads the list. Then comes traumatism, which includes all injuries from blows or falls on the head. Among the specific fevers, scarlet fever takes the lead for its destructive effects on the nervous system; although the cerebral inflammations claim an equal number. Fright occasions an unexpectedly high number, but in each case counted, the history seemed completely to substantiate this as the active cause.

Let us compare with this table the result of 300 autopsies collected from many sources:

* While the age is not given in these cases, the history shows that the child was beyond early infancy.

Hemisphere diseased.	Right.	Left.	Both.	Not stated.	Totals.
Atrophic sclerosis	21	14	38	23	96
Porencephalus	14	9	15	9	47
Porencephalus and atrophy	3	6	4	1	14
Agenesis	1	6	9	6	22
Tuberous sclerosis	1	1	11	0	13
Atrophy with internal hydrocephalus	0	0	2	0	2
Atrophy with cyst	1	0	1	0	2
Atrophy with hypertrophic skull	0	1	2	0	3
Hydrocephalus	0	0	17	0	17
Thickened membranes	0	0	14	0	14
Thickened membranes and vessels	0	0	2	0	2
Defective corpus callosum	0	0	29	0	29
Microcephalus	0	0	10	0	10
Hypertrophy	0	0	15	0	15
Hypertrophy with sclerosis	0	0	1	0	1
Cyst	3	0	0	2	5
Primary disease in cells, fibers, or both	2	0	3	3	8

It will be seen at a glance how relatively few are the cases, when conditions of non-development alone are the dominant defect in this table. It may be justly said that in such a large number, collected from every possible source, many of them intended to illustrate the cause of *physical* defect rather than *mental*, that the true proportion may not be here represented. I beg leave therefore to quote from 100 consecutive autopsies made at the Elwyn institution, in which in fifty-four per cent. conditions were found constituting the residual effects of former disease or traumatism. The initial stage of some of these, no doubt, occurred so early in life that their nature, and possibly even their existence, might not be determined. Many others probably occurred at an age when there was good opportunity for careful study and perhaps helpful treatment.

Glancing at the table, the large number of cases of sclerosis aud porencephalus will be at once noticed. These are both terminal conditions; and when fully established, it is doubtful if they can be relieved by any means within our present knowledge. Closely allied to these changes, we find the thickened and adherent membranes which follow meningeal inflammation, and which must necessarily interfere with the large blood supply so essential to the perfect functional life of the cerebral cortex. Of their early medical treatment we will speak a little later.

An interesting disease, fortunately quite rare, is tuberous sclerosis (sclerose tubereuse of the French writers). From a study of the histories of these cases, which I have been able to verify by autopsy, I should describe its clinical history as follows: Its onset is sudden, and demonstrates itself by spasms of only moderate severity, but nearly continuous. They last always several hours, and sometimes for days, and are generally localized in certain groups of muscles, rather than extending to general spasm. The rise in temperature is moderate. Stupor is continuous but may not be profound. The spasms are intractable under every form of treatment I have ever tried, and only ceased when the areas involved are functionally dead. If the child survives, it will be found that certain cerebral functions, corresponding to the areas attacked, are entirely and permanently obliterated. In no form of brain disease with which I am acquainted is the loss so sudden, complete and lasting as in this form. Postmortem, we find rarely single, generally several areas in the cortex, quite sharply defined to the eye, gray white in color and slightly elevated. Microscopically it appears to be due to a finely granular effused material, which presses on the normal elements of the cortex, obliterating the lymph spaces. The functional activity of the cells is first destroyed from pressure, and they soon atrophy. A little boy at Elwyn was found to have several areas of this disease, but his mother insisted that he had never had either a fit or any severe illness. That certain faculties (articulate speech for one) had never shown the slightest tendency to develop. This has led me to suspect that this condition might form in utero, as his mother was subject to spasms during her pregnancy. Though only eight years old, he had a well formed brain, weighing forty-eight and one-quarter ounces. The diagnosis of this disease is not difficult, its prognosis is distressingly easy, and I know of nothing which can greatly relieve it. I have dwelt on it to this length, because it is not generally in text books, and it is desirable to eliminate in diagnosis of more tractable affections.

From our examination of the pathologic conditions underlying mental enfeeblement, it is evident that medical treatment, at the time they are placed in institutions, is liable to arrive too late

to be of much service. By the time the child has reached the age of seven years. the brain has finished its period of most active growth. The hypertrophied brain has its bulk of interstitial tissue usurping the space and nourishment needed by the true brain cells and fibers for their own proper development; and the brain which has suffered from violence or destructive inflammatory process, has its mass of sclerotic scar tissue, whose influence on the healthy portion of the organ is that of a local irritant, tending to induce spasm or an increasing area of disease. However refractory such cases may be at their maturity, it is by no means true that they are equally so at the beginning. Let us take up some of the clinical causes of mental enfeeblement in the order of their frequency.

First among them is spasm occurring during the period of dentition. We find no less than 72 of our 322 cases have no other assignable cause for the subsequent mental decadence. Although in a large number of cases the convulsions ultimately cease, mental development is found to have been interfered with. All infantile disease which places any special strain on the system during this critical period, is liable to cause the same danger, and it will be generally found that the brains of the imbecile weigh less than those of normal children, and we have acquired imperfect development as a complication. The spasms of dentition is a subject deserving the most careful study and treatment.

It is a grave mistake to forget that the spasm by itself is but a symptom. That, however alarming it may be to the friends, it rarely does permanent harm. It is not scientific practice in such cases to numb the brain with large doses of bromid and take no means of strengthening its inhibitory power by exercising every known means of building up the nervous system. Plenty of fresh air is an essential. Moderate exercise, tonics, especially the phosphates, long continued. Delay all attempts at school education until assured of recovery, and above all other things guard the child's diet. It is my opinion, formed by years of study of large numbers of epileptics, that there is no more potent factor in the production of spasm in children than irritation of the gastro-intestinal tract. In a recent study of 566 cases of juvenile convulsion, in which the histories appeared full and reliable, in 52½ per cent. the convulsions had ceased, although mental enfeeblement had in some degree persisted. I believe as many would have recovered without so many cases of mental impairment, had the cause shared the treatment with the symptom.

Next in order comes traumatism, including blows, falls, and all other injuries to the head, from which I have excluded all cases which were not followed by spasms, paralysis, or other symptoms of severe nervous shock. It is comparatively rare for operative procedure to be made in these cases, partly, no doubt, because friends will not allow them. It is a very doubtful matter how much good operation would do, except where fracture occurs; for post-mortem examination demonstrates that the injury from blows is apt to be diffuse rather than local. Complete rest for some time after the accident should be insisted upon, and the appearance of a spasm after the primary irritation has had time to subside, should awaken the gravest apprehension. Secondary mischief has almost certainly been awakened, and such cases are most obstinate. The treatment recommended for early convulsions should be begun as early as possible. I would not discourage operative measures for such cases in these days when such operations can be done with relative safety.

It is difficult to believe that large doses of bromids should accomplish anything in these cases, except to smother the spasms and blind both physician and friends to the progress of the disease. Of the medical treatment I will speak later. The specific fevers are seen to be a very fertile cause of subsequent ceregral mischief, especially scarlet fever. It is not at all uncommon for convulsions to occur at some period of its course. In measles, if the nervous system is weak, meningeal symptoms are very apt to complicate the case. At the Pennsylvania Institute for Feeble-Minded Children, three epidemics of measles occurred, covering 397 cases. In the school department, when the children were of more healthy growth, catarrhal complications predominated; but in the asylum department, cerebral

complications were the rule in the many cases where complications occurred, in some cases so severe as to kill the child in two or three days. When pneumonia would fatally attack a measle case, meningeal congestion would also be found post-mortem. In all such cases, as soon as indications of intercranial irritation are seen, prompt derivative measures should be employed to relieve cerebral congestion before the foundation be laid for permanent changes. Bromids may enter freely in the treatment at this stage but should not be long continued. The general remedies for this purpose are too well known to need mention. The number of imbeciles left in the wake of acute inflammatory cerebral disease is well known. Only the comparative infrequency of this class of affections prevents this number from being frightful.

In all these diseases which I have described it is the residual products which cause the dreaded after effects. The remedies which are known to be of service are not numerous. Among those on which I have learned to look with favor is chlorid of gold. My use of it has been limited, but occasionally it has proved very effective. Much more can I commend a combination of iodid of potash with iodid of iron. In children where there has seemed to be a reawaking of cerebral change, and extension of old trouble has threatened, the symptoms have abated and the children have gained flesh and strength under its use. Arsenic, though less certain, has occasionally done good service.

The most satisfactory treatment is for the physician to follow his case through convalescence to complete health. To advise regular habits, sufficient rest, and above all things, and before all things, to provide rest and food for the rapidly-growing brain, whose needs in the very young dominate all other organs, and the retardation of whose growth may be lifelong.

Lastly, I will refer to those obscure cases of epilepsy which arise in the years between dentition and the advent of puberty without any cause that we can demonstrate, merely to confess my inability to understand their origin or to recommend special method of treatment. They will occasionally recover under almost any treatment. Bromids will best diminish the frequency of their spasms, and I believe, shorten the period during which they are fated to suffer.

Sex Superiority.

Mr. Hall Caine, whose statements regarding the inferiority of woman attracted some attention, has called down upon his unlucky head a spirited rejoinder from John Strange Winter (Mrs. Stannard). In the commencement of her literary career, Mrs. Stannard says in *The Young Woman*, her father died, leaving the family without a penny. She lived far from London, and had no friends to help her in the literary world. "Yet before I was thirty my name was known all over the English-speaking world. I have married, brought children into the world, ruled my house, sold 1,500,000 of books, kept up an enormous circle of friends, helped several charities and many strugglers both in kind and in influence, have kept my house better than most women, and have a husband and children who worship me and are never really happy unless in my actual presence.

"On the other hand," Mrs. Stannard proceeds, "you have Mr. Hall Caine, who is a small, fragile man who cannot work in London, who, by his own showing, is thoroughly exhausted by the effort of writing a single book, a bundle of nerves and fancies. He began his literary career with an enormous advantage over me. He has a wife to mind his house and to bolster him up when his nerves get too much for him. I fail to see where his immense superiority over me comes in."—*Westminster Budget.*

Two French medical men, MM. Carrion and Cantru, among other gaseous beverages which they commend for certain peculiarities of digestion, speak most highly of cider. In certain forms of dyspepsia it is said to be very desirable, where the process of digestion is too hurried; and for the gouty it is especially recommended as a corrective of the uric acid diathesis. Gout is held responsible for so large a number of ailments nowadays that cider should be shown much favor.—*Public Opinion, London.*

CURRENT LITERATURE CONDENSED.

A New Operation for Inward Rotation after Equino-Varus.[1]

Certain deformities are a common sequence to the cure (so far as the foot is concerned) of advanced equino-varus, which are unobserved during the existence of the greater malformation. These are genu valgum, and a rotation inward of the foot and lower part of the limb.

Genu valgum seems to be the result of imperfect development of the structures composing the post-axial line of the leg.

Rotation inward of the limb is a sequence of great importance. A foot that has been so far cured as to normally rest flat on the ground, is inverted, and in walking is carried forward on the dorsum, or against the tendo-Achillis, of the opposite. Voluntary efforts by the child produce only an apparent improvement, by outward rotation of the entire limb by the external rotator muscles of the hip.

The patella, instead of occupying its normal position, is forced outward, and one deformity is induced to correct another. Placing the patient on his back and adjusting the limbs, so that the patella lies in front, we see that the distortion is below the knee. The tibia is in its natural position, but the lower extremity of the fibula lies much in front of the position which it should occupy.

The deformity is an analogue to the natural condition contributing to functional efficiency in the anthropoid ape. Mechanical appliances conceal one deformity by producing a less obvious one, and injure health by restricting active movements. It struck me that a rectification of this could be made by osteotomy and external rotation of the lower limb. The tibia is completely divided at the junction of the middle and lower third. A green stick fracture will not suffice. Considerable care must be taken to leave the fibula intact, as slight strain is sufficient to fracture it. The two segments of the tibia are now firmly grasped, and the lower one rotated outward, carrying with it the foot and the fibula, and leaving the foot straight or inverted according to the amount of rotation applied. I have operated on many dozens of cases by this method, and in the great majority of cases of aggravated equino-varus I think it will be found a satisfactory and necessary procedure.

[1] R. L. Swan, F.R.C.S.I., *The Dublin Journal of Medical Science*, October, 1895.

Cancer of the Pancreas.[2]

The specimen I present here is a tumor of the spleen and the tail of the pancreas from a negro.

The man was a hard drinker, about forty years of age. Six months before death he had a severe attack of vomiting of blood, and later suffered from a continued fever. Before complete recovery from this he was attacked by foot-pads, and a rough gash about one and a half inches long cut on his forehead. There was no fracture of his skull. Next day he vomited blood. This was repeated frequently until he died from exhaustion five days later. The physician made a partial post-mortem and brought me the stomach, spleen and part of the pancreas. The stomach contained a small amount of bloody, ropy mucus; the mucosa was congested and a number of minute ulcerations were seen. The head of the pancreas had not been removed; the remainder was a firm, smooth, lobular mass, attached only to the spleen, which by pressure had been so eroded as to partially encapsulate the tumor. Though somewhat enlarged, the spleen was not infiltrated, but had been so much eroded that its larger blood-vessels were exposed. Under the microscope the tumor shows the progressive steps from normal tissue to a fully developed scirrhus cancer.

As in this case, tumors of the pancreas are usually found post-mortem, and are not recognized during life. What

[2] E. S. Epler, M. D., *Journal of the Arkansas Medical Society*, November, 1895.

influence this tumor had on the man is a matter of conjecture.

The shock of the assault possibly gave rise to vomiting, which in turn caused the fatal hemorrhage.

Nervous Eructation.[3]

Belching of air swallowed with the food, or of gases due to fermentation, is not uncommon; but it occurs only during digestion. In cases of hysteria we find belching occurring even from an empty stomach, and in spells persisting for a long time. Frequently the first attack is due to violent emotion; in some cases to imitation. It is to be noted that appetite persists, and the digestive functions are but little disturbed.

The gas has been analyzed, and it is generally admitted to be only atmospheric air swallowed and, later, expelled. By stopping the movement of deglutition, as by keeping the jaws open with a cork, or by depressing the tongue, the eructation ceases. It is not necessary that the swallowed air reach the stomach, for it may be expelled from the œsophagus. Respiration is not interfered with, and the respiratory muscles appear to take no part in the process. The treatment is the treatment of hysteria, though bromide of potassium seems to relieve the disorder while it is being used. Swabbing the pharynx with cocaine solution has no effect.

Pulmonary Infarction After Hysteropexy.[4]

An American woman, forty-two years old, unmarried, medium height, well-nourished and well-developed, had always menstruated regularly but suffered from more or less pain before the menstrual flow. She enjoyed good health until seven years ago, when she had an attack of "nervous prostration," brought on by teaching a kindergarten school. Since that time she was nervous, but could control herself by the exercise of an unusually strong will. Her most distressing symptom was persistent, nagging backache, which never left her and even kept her awake occasionally after a hard day's work. She was perfectly willing to accept any form of treatment which promised relief. Besides the backache, she had at times pain in the region of the coccyx. There was retroversion of the uterus in the third degree. The uterus was easily replaced, but owing to the smallness of the vagina, could not be kept in position by support. The operation of hysteropexy was proposed and accepted. Two silk sutures were used to attach the fundus to the abdominal wall. Silkworm-gut was used for the abdominal incision and cat-gut for the transversalis fascia. Both ovaries and tubes were normal. The patient had slight malaise and nausea on the sixth day, and that night suddenly went into profound collapse. When she recovered she was bathed in cold perspiration; her pulse was 160 and very feeble; temperature, 96.4°; respiration, 32; tongue slightly coated; and she complained of excruciating pain in the pit of the stomach.

The abdomen was slightly tympanitic, but not sensitive; the bowels had moved two days before, flatus had passed the previous day and during the night. She was menstruating at the time of collapse, one week ahead of time. The following possibilities were considered: 1, hemorrhage; 2, intestinal obstruction; 3, colic; 4, hemorrhagic infarction of the lung. As the patient had an egg-lemonade and milk during the afternoon, colic was supposed to be the trouble. Embolic infarction was thought improbable because severe dyspnœa was absent, and because of the severe abdominal pain which suggested an abdominal lesion. Ease and general improvement followed an injection of morphine, and a free movement of the bowels followed a dose of salts. The urine was scanty and contained a trace of albumen and casts. The diagnosis was made when she began to expectorate considerable amounts of bright red sputum, forty-eight hours after the collapse. For two days more she improved markedly under forced stimulation with strychnia, alcohol and food. She then became worse, and died a few days later.

At the autopsy the kidneys showed slight cloudy degeneration; the spleen was slightly hyperplastic. The left lower lobe of the lungs was the seat of

[3] Dr. E. M. Dupaquier, *New Orleans Medical and Surgical Journal*, December, 1895.

[4] Edgar Sarcean, M. D., *Boston Medical and Surgical Journal*, December 19, 1895.

several embolic infarctions, as well as the seat of true croupous pneumonia (secondary). In the left common iliac vein was a thrombus firmly adherent to the walls of the vessel and partially organized; it occluded the whole lumen and extended downward into the left femoral vein to the middle of the thigh. No thrombi were found in the veins of the left broad ligament. The peritoneum showed no trace of inflammation, and the uterus was held firmly fixed to the abdominal wall by the sutures; adhesions had already formed (nine days) but they were easily broken up. Bacteriological examination showed only pneumococci in the emboli. The culture from the thrombus in the iliac vein was unsatisfactory, owing to mixed infection in taking.

The question arises: Is it justifiable to subject a woman to abdominal section for retroversion without adhesions? For my own part, I should be disinclined to do so again, but would choose one of the vaginal operations.

Traumatism as a Cause of Tubercular Meningitis.[5]

Immediately after Koch's discovery of the tubercle bacillus, this bacillus was believed to be the sole cause of tuberculosis. Nothing more was heard of the time-honored dictum of the causation by traumatism. From Schüller's investigations we learn that in animals which have been infected with tuberculosis, an injury to a joint will determine a tubercular affection of the joint in question. Now, after Koch's discovery and Schüller's experiments, we are able to assign to both trauma and the tubercle bacillus their true etiological value. Traumatic tuberculosis is really metastatic, the metastasis to the particular joint affected being determined by the traumatism. In the rare cases in which the bones and joints are attacked primarily, the bacillus must be held to have invaded the system through the respiratory or digestive tract, which tracts themselves do not necessarily show any evidence of tubercular disease (Krause). The occurrence of primary tuberculosis of the lungs, in persons previously healthy, as a result of traumatism of the thorax has been almost established as a result of the clinical observations of Mendelsohn. Little is to be found in literature in regard to the relation between tubercular meningitis and injuries to the skull. Most authorities deny the relation, but some affirm it. Schilling gives a careful and interesting clinical account of a case in which a fall on the head from a height of four metres was followed, after eleven days had elapsed and complete recovery from the immediate effects of the blow had ensued, by a fatal attack of tubercular meningitis. Death took place in twelve weeks, and at the autopsy meningeal tuberculosis was found, together with tubercular peribronchial glands, some of them cheesey in the centre. Schilling thinks the bacilli previously encapsulated in these glands were set free by the shock of the fall, into the blood or lymphatic channels and localized at the point of injury in the head. According to Koch and Baumgarten, ten to twelve days are required for the development of a tubercular focus, which evidently just corresponds with the elapsed time in the case reported. Schilling justly remarks that in those cases in which the onset of the symptoms takes place one or two days after the trauma, the tuberculosis must have antedated the injury.

5 Editorial in *Boston Medical and Surgical Journal*, December 19, 1895.

The *Journal of the American Medical Association* has an editorial, the general trend of which is to show that hypnotism has had its day, and is practically being laid upon the shelf, or, at least, its use confined to irregulars outside of the recognized school of medicine. This is a rather curious statement to make, at least, if one measures the interest of a medical topic by the number of articles written about it. There are few subjects about which German physicians are writing more monographs at present, or in which they seem to take a more active interest. The sensational side of hypnotism is certainly dying out, but a certain practical side, which is represented by the word "suggestion," has undoubtedly come to stay, and to be used in therapeutics.—*Medical Record.*

Pat—"Phwat does they use grape-shot for!" Mike—"Shure, it's to give the inemy appendicitis."—*Puck.*

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PHILADELPHIA, SATURDAY, JANUARY 11, 1896.

EDITORIAL.

THE PERIODICAL IN MEDICAL LITERATURE.

However it may be with other departments of human knowledge, in those relating to medical science, *authority* is essentially a question of chronology. The interpretations of phenomena which, yesterday, were accepted as proved, to-day, are found unsatisfactory and are held in distrust; to-morrow, they will be condemned and cast aside to test the theories of to-day; thereafter to be lost in the darkness of forgetfulness until, having completed their orbits through the mental cosmos, they reappear, in form more or less changed. The words of the preacher-king of Jerusalem seem true, "There is no remembrance of former things; neither shall there be any remembrance of things that are to come with those that shall come after."

The ever-increasing volume of medical literature makes this more and more apparent. Because of the very limitations of the human mind, it needs must be fortunate that the problems of the natural world are prone to move in cycles, and present and re-present themselves until they may be rightly apprehended and correctly solved. Hence it is that much of valuable truth is to be found amid the masses of discarded error in the

writings of those who once wielded that *authority* by which, now, they themselves are condemned to oblivion.

It was the work of the earlier men in medical science, outgrowing the opportunities for development afforded through individual publication of formal treatises, which necessitated the creation of periodical literature, to be filled with the best products of their studies and researches. These men, with limited resources, but burning with the zeal and sincerity of their purposes, used every instrumentality at their command to discern the fundamental truths of medical science. And it is due to their observations, the true and the false alike, that our science of to-day no longer stumbles in the dim twilight in which the fathers groped and toiled.

Much that these earlier writers have handed down to us, has value more than that of ancient history, but as to the *authority* to be accorded them, they must be weighed in the same balances as are the writers of to-day, and be judged by the same principles. As some writer recently expressed it: "It may be said that the authority of professors of any science, is trustworthy in proportion as the points of agreement among them are numerous and important, and the points of difference few and unimportant."

Although the older writers—for that matter, the vast majority of all writers, and for the same reasons—must be denied the prestige of authority in the field of medical science, because of their crude conceptions and limited acquirements—or, as it would appear in the light of present knowledge, their limitless ignorance and absurd speculations—, there is one respect in which their works are invaluable for the progress of scientific medicine.

Physical science is nothing more than general deductions, resulting from systematized processes of collection, comparison, correlation, combination, concentration, crystallization, classification and cataloging of the observations of natural phenomena reported by innumerable investigators. Science is unstable in proportion as the factors entering into its equations be unknown, ignored, or allowed too much or too little importance. Even those sciences we are pleased to call exact, are constantly undergoing modification and revision—occasionally reversal — in the ever-widening powers of the human understanding. Science exists and grows by observation, and the earlier medical writers were rare, keen observers. Where their theories were deducted from their observations, their conclusions were not so far astray. For thoroughness in searching out details and for accuracy in recording their clinical observations, some of the earlier writers have never been excelled, perhaps seldom equaled, among the host of investigators and researchers of to-day.

Moreover, the marvelous progress in all sciences related to medicine achieved within the present generation has utterly revolutionized the so-called science and art of medicine. So rapid have been the changes that scarcely would the ink be dry upon the pages of some new pretentious oracle, before such recent literature must be accounted valueless, because behind the times. Thus there is almost a complete lack of written authority for the intelligent and satisfactory guidance of the physician of to-day, which has been sanctioned and endorsed by common usage and consent.

To a very great extent the lawyer must accept the law governing in each particular case upon the authority of precedents reported in his law books. The physician, on the other hand, dare not rely for guidance and authority upon any save the most recent literature of his profession. His life is essentially

practical. In the very nature of his work he meets with many cases for the treatment of which he can find no established precedent, even should time permit of careful search for such advice. The lessons learned of experience are those which are never forgotten. Knowledge which does not come by experience must be obtained through other sources. He must have the information for the practice of his profession. He demands the latest thought and the most recent results of the work of the most scholarly and scientific leaders in his profession. He must keep in touch with the current practice and intelligence of the profession, and to sustain his position his information must be fresh, and kept constantly up to date.

It is the function of the medical periodical to fill, as far as possible, these requirements. It cannot, from its very nature, assume the positiveness of an authority, but by supplementing the best of recent and accepted guides in practice, it enables the physician to become an intelligent authority to himself —provided he be thoroughly grounded in the general principles of his science. In presenting what is new and apparently valuable in modern science, the periodical assumes the character of a newspaper or current review, and not that of an arbiter to decide the ultimate disposal of the matter presented. The estimation of final value rests with the profession itself, to be determined by experiment and experience.

Moreover, the periodical cannot avoid presenting some amount of that which is crude in conception, of opinions hastily formed, or hypotheses based upon insufficient or inaccurate observations,—much of which is little more than learned ignorance,—and all because sufficient time has not elapsed to demonstrate the fallacy. In no formal work posing as authority could such conditions be tolerated for a moment. Yet, even such contributions occasionally may have a suggestive value, and frequently prove useful in stimulating healthful, active cerebration.

If the busy practitioner, who finds in his periodical information of practical value to himself, would bear in mind that the knowledge he has gained in his own experience might prove of inestimable value to some fellow-physician, and would make his information available, he might do something to promote the progress of his chosen calling and enhance the benefit to suffering humanity contemplated in the practical application of his science.

Acetylene and City Gas.

Acetylene gas is heralded as a discovery which will revolutionize the gas industry of the United States. The parent company, owning the rights and processes of manufacture, proposes to dispose of these rights to cities, on very profitable terms. In Philadelphia, over 2,500 individuals have applied to the local company to have the gas installed before they even know what it will cost. The only assurance is that they will get twenty per cent. more luminosity from a given expenditure of money than they do now, and a gas which does not flicker. The Philadelphia company is completing a plant at Niagara Falls, which, by the first of the new year, will be producing the carbide from which acetylene gas is made. It will produce thirty-five tons a day at a cost of something under $20 a ton. Philadelphia will take 120 tons a day. Acetylene is over forty times as brilliant an illuminant as is ordinary city gas. A party of eight Chicago gas people, representing $70,000,000, recently visited Philadelphia, and made a personal examination into the claims of acetylene gas. They purchased the right for Chicago and the whole State of Illinois. New York gas interests have also been negotiating for the purchase of the rights to manufacture acetylene gas for the city of New York.—*The Financier*, New York.

ABSTRACTS.

ELECTROLYSIS FOR THE SURGICAL TREATMENT OF STRICTURES.*

J. A. Fort, M. D., Professor of Anatomy in the *Ecole Pratique* of the Paris *Faculte de Medecine*, in a paper read before the Section in Genito-urinary Surgery of the New York Academy of Medicine, November 12, 1895, said:

It is a well-known fact that electrolysis has been discarded on account of the imperfect instruments which were used. My electrolyser has all the advantages of the urethrotome and none of its inconveniences. It looks like a small whip, of which the handle contains a metallic wire projecting from the end which connects with the flexible part. This instrument, being first introduced into the urethra, is connected with the negative pole of a continuous current battery, and the positive pole is connected near the affected part, on the front of the thigh or over the pubes; then the current is turned on.

The operation which is almost painless, requires thirty seconds (on an average), with a current of a strength of at least ten milliamperes, as indicated by means of a galvanometer. The electrolyser remains perfectly cool during the operation. In nearly all cases there is no bleeding, or but very little. The urethra is made aseptic before and after the operation, in order to prevent fever. I never allow a sound to remain permanently in the urethra for any length of time after the operation.

Usually, the wound resulting from electrolysis heals quickly without any local treatment whatever, and often the patient can attend to business immediately after the operation. When the wound does not heal, I merely prescribe injections, morning and evening, of one part of hydrozone to twenty parts of water. In nearly all cases I pass a sound the third day after the operation, also the day after. I instruct the patient to pass a sound, No. 22 or No. 24 F., every month and every other month.

With the urethrotome, which cuts blindly, the surgeon cannot ascertain the degree of density of the tissue of a stricture. On the contrary, by means of electrolysis, which merely produces a molecular destruction of the stricture although the instrument remains cool, I have been able to demonstrate two classes of strictures—"soft" and "hard." Hard strictures are in the proportion of one against five soft ones.

The time required to perform the operation varies with the density of the stricture. Some strictures are so hard that they cannot be successfully operated upon by electrolysis.

If my American colleagues who are familiar with the French language will refer to my book entitled "*Traitement des Rétrécissements par l' Electrolysis Linéaire*," they may find it interesting, as it will enable them to understand the improvements gradually introduced in the applications of electrolysis to surgery during the last fifteen years. They will also understand how I have applied electrolysis to the treatment of strictures of the urethra, uterus, rectum, and œsophagus.

Up to date, I have performed in Europe one hundred and thirty-five operations on strictures of the œsophagus (recorded in my book), and, with the exception of those which were caused by malignant growths of the wall of the œsophagus, all recovered.

It has been my good fortune to meet here some leading surgeons who are authorities in the treatment of strictures, and I am grateful to them for giving me opportunity to demonstrate the advantages of my method in operating upon some of their patients. The report is as follows:

CASE I.—Sailor, sixty-two years old, admitted to Bellevue Hospital October 12th, ultimo. Five strictures, of twenty-five years' standing, the deepest one being located seven inches from the meatus; urethra broken off, with urinous infiltration; serious case. The

* *New York Medical Journal*, November 16, 1895.

patient urinates with great difficulty every two hours; urine fœtid. Stricture is so narrow that filiform sound No. 3 F., can hardly be passed through.

Operated by linear electrolysis October 18th, in thirty seconds. No bleeding; no after-treatment.

October 21st.—Sounds Nos. 15, 20 and 22 F. passed. Patient urinates three times a day; no pain; large stream; urine normal.

October 22d.—I passed sounds Nos. 22, 23 and 24 F., in the presence of Professor Taylor. Complete cure. The urinous infiltration caused an abscess which has been treated by Dr. Hart. Recovery.

CASE II.—Thirty-five years old; the stricture is of five years' standing; urinates six or seven times a day; urine turbid; I passed sound No. 13 F. The stricture is triplex, the first being located an inch and a half from the meatus, the second at four inches and a half, and the third at five inches.

I operated October 18th, in twenty-five seconds. Slight pain; sound No. 22 F.

November 5th.—Sound No. 23 F.

CASE III.—G. D., forty-one years old, entered Bellevue Hospital October 27th.

Gonorrhœa eight years ago; cured in two months.

Second blennorrhœa two years later; cured in nine months.

Stricture of four years' standing. Two years ago the patient submitted to internal urethrotomy at the Manhattan Hospital.

Later, external urethrotomy was performed at the Presbyterian Hospital.

Five strictures. Urinates every two hours; urine turbid.

Electrolysis, October 30th. The first four strictures were soft and the operation required but few moments; the fifth required three minutes. No bleeding; pain quite severe.

Each passage of the sound was accompanied by chills.

November 1st.—No chills; urine normal.

November 5th.—Passed sound No. 10 F. Electrolysis repeated. Passed No. 17 F.

CASE IV.—D., thirty-one years old.

Had blennorrhœa eight years ago; cured in seven months. Stricture appeared six months ago. Two strictures, one being four inches from the meatus, and the other six inches. Sound No. 1 E., passed with difficulty. Electrolysis, October 29th. Duration, twenty-five seconds. No bleeding, no pain, no fever.

November 3d.—Patient well. Passed sound No. 18 F.

CASE V.—Ch. F. P. Three attacks of urethritis; first and second followed by no complications, third followed by stricture. First attack, fifteen years ago; second, ten years ago; last, seven or eight years ago.

Sounds passed occasionally (two or three times a year) when it was very difficult for him to urinate. A month and a half ago had retention and was relieved by dilatation with the olivary bougie.

October 26th.—Retention has again occurred, and Dr. Fort operated by the "cold electrolysis" method. Strictures were in the membranous portion of the urethra, and very small, necessitating some fifteen or twenty minutes to introduce the filiform portion of the electrolyser. After the current was turned on twenty-five seconds were consumed in passing through the strictures, accompanied by very little pain. He was then able to pass his urine in a good-sized stream.

October 29th.—A No. 7 E. sound was introduced.

November 2d.—Patient has had no difficulty in passing his urine, but the stream is smaller and more dribbling.

CASE VI.—X., thirty-four years old. The strictures very tight, located in the membranous portion of the urethra.

Filiform sounds of the smallest size pass only with difficulty.

Electrolysis applied October 26th. Operation required twenty-five seconds. The patient, who was troubled with retention of urine, was delighted to get such immediate and complete relief. Did not return.

CASE VII.—A., thirty-four years old. Large stricture of seven years' standing. The probatory ball No. 15 cannot pass through.

Electrolysis October 23d. Operation required twenty seconds. No pain, no bleeding, no fever.

October 29th.—Passed a sound No. 15 E. without any difficulty.

CASE VIII.—B., forty-nine years old. The patient had several blennorrhœal attacks—the first in 1864, and the last one in 1884. The first symptoms of stricture appeared in 1890.

The disease slowly developed until a surgical operation became urgent.

He does not urinate frequently—six or seven times per day; urine is clear. Urination is accompanied with painful strains.

Three strictures—the first, two inches from the meatus; the second, five inches and a quarter, and the third, six inches. The diameter of the first, four millimetres; the second, two millimetres; and the third, one millimetre. The smallest size probatory ball cannot pass through.

Electrolysis, October 25th, at the French Hospital.

The electrolyser passed the stricture in thirty seconds, after which the patient urinated freely; large stream. Immediately after the operation, passed sound No 7 E.

October 30th.—Patient stated that he had no fever since the operation, and he urinates freely.

November 3d.—Passed sound No. 10 E.

CASE IX.—Jules J., thirty-two years old. Two strictures, twelve years' standing. One located at two inches from the meatus, and the other at six inches. The exploratory ball No. 12 could not pass through.

Chronic gonorrhœa, severe pain caused by concomitant urethritis.

Electrolysis, October 23d, required twenty seconds. Slight pain, no bleeding. No sound passed since, on account of urethritis.

CASE X.—R., thirty-nine years old. Stricture fifteen years' standing, after gonorrhœa. Passes urine every hour, day and night; small streams, sometimes dribbling.

Five strictures, located, respectively, at half an inch, two, three, six and seven inches from meatus.

Sound No. 1 E. passed through with great difficulty. General health of patient is bad, he being thin, weak and almost cachectic.

Electrolysis, October 10th. Second stricture is unusually hard. Operation required ten minutes; bleeding.

Several days later, I passed sounds Nos. 7, 8 and 9 E.

October 18th.—Passed sound No. 9 E. Patient discharged.

This patient was troubled with a temporary chill at each passage of the sound.

A celebrated Belgian physician says that yawning is an exceedingly healthy function generally, besides having a very salutary effect in complaints of the pharynx and eustachian tubes. According to the results of late investigations, yawning is the most natural form of respiratory exercise, bringing into action all the respiratory muscles of the chest and neck. It is recommended that every person should have a good yawn with stretching of the limbs, morning and evening, for the purpose of ventilating the lungs and tonifying the muscles of respiration. An eminent authority claims that this form of gymnastics has a remarkable effect in relieving throat and ear troubles, and says that patients suffering from disorders of the throat have derived great benefit from it. He makes his patients yawn either by suggestion, imitation, or by a series of full breaths with the lips partly closed. The yawing is repeated six or eight times, and should be followed by swallowing. By this means the air and mucus in the eustachian tubes are aspirated.—*Detroit Free Press.*

Eggs are now imported from Russia shelled and preserved in hermetically sealed tins, from which they are drawn off through a tap. Eggs in this condition are principally used by pastry cooks, and the advantages claimed for the system are: freedom from damage in transport and long keeping qualities. The tin or drum is packed with straw in a wooden case, and holds the contents of 1,000 to 1,500 eggs, the white and yolk being mixed together, poured into the drum, and the aperture closed with a bung and sealed. Great care is said to be necessary in selecting the eggs to be preserved, as one bad one will spoil the whole cask or drum.—*Invention, Lon-*

"GORE" OF THE ABDOMEN BY AN ELEPHANT'S TUSK.

Surgeon-Major T. K. MacDonald, of the Indian Medical Service, reports (*Edin. Med. Jour.* Jan., 1896): Whilst in medical charge of the arrangements of the Sanipore Fair, in the district of Sarun or Chapra, of which I was civil surgeon, in November 1894, the following very rare and remarkable case came under my care, which in those days of advanced abdominal surgery may be of interest.

Gudir Mea, a Mahommedan male, about forty-six years of age, an elephant driver, of spare frame, and of the most strictly temperate habits, was admitted into the Sanipore Camp Hospital on the 12th November 1894 at 9 A.M. It appears that he was sitting down in front of the elephant of which he had charge, which was one of over two thousand at the Fair, when the animal, which took fright at a passing railway train, charged his poor keeper, pinning him through the abdomen to the ground, thereafter tossing him off his tusk into the air, and leaving him for dead on the hard camping ground. On admission the patient was found by the hospital assistant in charge to be completely collapsed, and his wounds and injuries so extensive that he put off two hours before sending for me to my tent, about half a mile off, as he expected the man to die immediately. On seeing him at 11.30 A.M., I found him pulseless, with extremely feeble heart's action, and breathing gasping. After some trouble, I managed to introduce two ounces of brandy into his stomach with gum elastic tube and small glass filler, and gave him a subcutaneous injection of morphia thereafter, on finding the heart responded to the stimulant. On examining his injuries, I found the left side of the scrotum torn from base to apex, and the left testicle and cord hanging out through the wound; there was a laceration of the skin and subcutaneous cellular tissue extending at right angles to the scrotal wound from the pubis to the left iliac spine, which admitted the hand, which could be passed up between the muscles of the abdomen upwards, as high as the umbilicus, and laterally as far as the upper margins of the iliac region on both sides, and the abdominal muscles were felt to be lacerated to the extent of four inches, and several coils of intestine protruded through the opening, which was situated in a line passing obliquely upwards from the middle of the left groin towards the umbilicus. In the right lumbar region was found another lacerated wound irregularly oval in shape, and three inches in diameter, its lower margin just touching the junction of the posterior and middle third of the crest of the illium, and the finger could be freely passed into the abdominal cavity. Very little hemorrhage took place from either of the wounds. On learning the history and looking at the wounds, it was evident that the elephant's tusk passed obliquely through the man's abdomen from the left iliac to the right lumbar region. The tusks were examined on the spot, and the right tusk was found smeared with blood to a point about sixteen inches from the point, and to be fourteen inches in circumference at a point eight inches from the tip of the tusks. The tip of the tusks was, fortunately for the patient, shaped like the smaller end of a turkey's egg, and not so pointed as many elephant's tusks often are. Finding the patient had rallied, and that it was well to attempt to give him a chance for his life by exploring his abdomen for possible bleeding vessels, or wounded intestine, and cleaning out the sand and dirt left by the tusk as it was withdrawn from the sandy ground, I, with the help of my hospital assistant and a lay friend, who happened to be on a visit to me from Edinburgh, proceeded to give him chloroform, which he took well. I then laid open the flap of skin in the left iliac region, exposing the deep abdominal wound, which I enlarged upwards and downwards, so as to enable me to thoroughly explore the abdominal cavity, making a long wound passing obliquely from the umbilicus to about the middle of Poupart's ligament. I found the intestines intact, and no blood-vessels injured. There was a considerable quantity of blood mixed with grains of sand found amongst the coils of

the intestine. This I removed as carefully as was possible with tepid boracic lotion, and the gentle use of the two only new sponges at my disposal. After removing every particle of sand and drop of blood in the abdominal cavity, I closed the front deep abdominal wound with catgut ligature in the form of a continuous suture passing deeply through the muscles, and including the peritoneum; and the skin wound was closed with horse-hair suture. The lumbar region wound was partially closed by deep catgut and superficial horse-hair suture, and a large drainage-tube passed into the abdomen through it. Perchloride of mercury lotion (1-3000) was used to purify the wounds both before and after the operation, and boracic lotion, as already stated, for cleansing abdomen. Mercurcial dressing and carbolized tow were used throughout the case, and antiseptic precautions were used as far as circumstances admitted. With the exception of some sloughing of the skin over the abdomen, the patient made an uninterrupted recovery, and his temperature never arose above 101°F. on the third day. He left the hospital at Chapra, where he was removed from Sanipore a fortnight after the accident, within ten weeks of his accident, with his wounds completely healed up, and in excellent health, apparently none the worse of the elephant's tooth passing through his abdominal cavity. The only regret is that the patient, being a Mahommedan, left the hospital before he could be photographed, this religious sect having strong religious scruples to having their own pictures or those of animals taken, I suppose in contradistinction to Hindoos, who are so fond of the worship of images and pictures of human beings and the lower animals.

STAINS AND THEIR REMOVAL.

Wine stains, if old, treat like old fruit stains; if fresh, table salt spread over the spots while wet will neutralize the damage.

Stains of which the cause is unknown will frequently disappear if held in a pan of milk boiling on the fire, or by dipping them in sour buttermilk and drying in the sun. The articles should then be washed in cold water, dried, and the process repeated several times in the day. The following bleaching liquid will effectually remove any trace that may still remain after the garments have been through the laundry. It may be called an instantaneous ink- and stain-eradicator, but requires to be used with care, lest the fabric suffer. Put a quarter of a pound of chloride of lime and a quart of soft water in a wide-mouthed bottle, and shake it well. Cork tightly for twenty-four hours, and then strain through cotton and add one teaspoonful of acetic acid to every ounce of the mixture. Damp the stain, apply the extractor, and wash well in clear, soft water.

For the removal of stains and spots from colored materials and carpets, ammonia takes the first place. Almost any mark, new or old, will yield to its persevering use, and if dabbed on (not rubbed) it will itself leave no trace of its use. It can be applied to woolens, cottons, and silks. It will remove ink spots from marble, paper, and wood. Grease flies before its application; and when diluted with water, spots caused by orange or lemon juice or vinegar are removed by it from the most delicate materials. For very nice fabrics some people like to use the old-fashioned javelle water, to be obtained from the chemist, but ammonia, delicately applied, does quite as well. From carpets, curtains, and suits of clothing it will remove almost every stain, including that caused by whitewash.

Scorched linen can be restored if the threads are not injured. Peel, slice and extract the juice from two onions, add half a pint of vinegar, half an ounce of curd soap, two ounces of fuller's earth; boil these well, and, when cool, spread over the scorch, let it dry on, and then wash out the garment.

PERISCOPE.

MEDICINE.

Formulæ.

CANKER SORES ON LIPS, MOUTH, TONGUE, OR THROAT.

Zinc sulphate	gr. 40
Rose water	oz. 1

Apply every other day to the spots with a camel's hair brush or a piece of cotton. Canker sores can be touched to advantage every day or two with burnt alum or a piece of sulphate of copper.—*West. Drug.*

CRACKS OR IRRITATION INSIDE OF THE NOSE.

Glycerin	oz. 1
Rose water	" 1
Borax, or tannic acid	gr. 15

Apply to the irritated surface several times a day with a piece of cotton or with a camel's hair pencil.

Ointment of oleate of zinc also is good, and is applied with the end of the finger or with a camel's hair pencil. The powdered oleate of zinc blown up the nostrils with a quill is also beneficial.—*Western Drug.*

FEVER BLISTERS.

Camphor	gr. 5
Arrowroot, powdered	" 30
Bismuth subnitrate	" 30
Cold cream	dr. 4

FOR ACNE.

Mercuric chloride	(gr. 1 to) gr. 2
Resorcin	(gr. 30 to) dr. 1
Cherry-laurel water	fl. dr. 2
Wheat flour	dr. 2
Lanolin	enough to make oz. 1

—*Bernard Wolff.*

FOR ACNE OF THE FACE.

Ointment betanaphthol	gr. 15
Ointment storax	" 15
Lard, benzoinated	" 375

Application of this mixture should be made with strong friction every night for a week, then interrupted for six days, when it may be repeated if necessary, although it is often useless to do so. If there is an appearance of small acute clusters, which generally show themselves toward the second day, the acne is ordinarily cured or very much ameliorated at the end of a week.—*Bull. Gen. Therap.*

DUSTING POWDER FOR BROMIDROSIS.

Flowers of sulphur	parts 20
Salicylic acid	" 5
Arrowroot	" 1250

This is a useful application for perspiring hands and feet.

ANTISEPTIC WOUND-DRESSING.

Iodoform	parts 10.0
Cinchona	" 10.0
Charcoal	" 10.0

—*Dr. J. Cornby.*

FOOT-POWDER.

Bismuth subnitrate	parts 45
Talcum	" 40
Potassium permanganate	" 3
Sodium salicylate	" 2

An excellent application for perspiring feet.—*Chemist and Druggist.*

ZINC CREAM FOR BROMIDROSIS.

Zinc oxide	oz. 1
Starch powder	dr. 4
Salicylic acid	" 1
Glycerin	" 4
Saturated solution boric acid in rose water	oz. 4

Useful for painful, sweaty feet.—*Chemist and Druggist.*

OINTMENT FOR BARBER'S ITCH.

Ichthyol	gr. 30
Salicylic acid	" 48
Mercury oleate	dr. 2
Zinc oxide	" 3½
Starch	" 3½
Petrolatum	" 7

—*West. Drug.*

STYPTIC TAMPONS FOR OBSTINATE NOSE-BLEED.

Tannin	gr. 25
Benzoic acid	" 25
Carbolic acid	" 25
Collodion, flexile	fl. oz. 1

Impregnate absorbent cotton with this styptic and plug with it the posterior nares.—*Rougier.*

LOCAL TREATMENT OF PHAGADENIC CHANCRE.

Touch the ulcer with the following solution:

Cocaine hydrochloride	gr. 15
Iron and potassium tartrate	dr. 4
Water	fl. oz. 3

After the application keep the sore covered with

Iodoform	dr. 5
Menthol	gr. 8

The patient should also be put on iron, cinchona, and gentian.—*La Tribune Medicale.*

INJECTION FOR GONORRHEA.

The following is used by Dr. J. W. White in the second stage of gonorrhea:

Mercuric chloride	gr. ⅓
Zinc sulphocarbolate	" 48
Carbolic acid	dr. 3
Solution boroglycerin (fifty per cent.)	oz. 4
Rose water	enough to make fl. oz. 16

SYRUP OF CHLORIDE OF IRON (EQUAL TO WELD'S).

Sol. ferric chlor. U. S. P.	m.	160
Potass. citrate	gr.	224
Citric acid	dr.	1
Water	oz.	8
Glycerin	"	2
Syrup	"	16

Dissolve the citric acid and potassium citrate in the water, then add the solution of ferric chloride. When the solution has become clear and assumed the proper hue, add the glycerin and syrup.—*Drug. Circ.*

CARBOLIZED SPONGES.

Carbolic acid	g.	50.0
Alcohol	"	200.0
Water	"	750.0

Bleached sponges are allowed to remain in this solution for twenty-four hours, when an equal volume of water is added. The sponges remain in the fluid.—*West. Drug.*

Suicide.

In the *Journal of the American Medical Association*, Forbes Winslow, a noted writer upon mental disorders, has an article upon "Suicide as a Mental Epidemic." Giving a history of the influence of example and beliefs in producing epidemics of mental disorder in remote ages, he inquires into the "reasons for this year's epidemic."

"Speaking generally, the reasons for this epidemic appear to me as follows:

"1. The great publicity given by the press in publishing revolting details of crime and trials, thus reacting perniciously in the minds of weak-minded persons.

"2. Insufficient power of the Legislature in suppressing such publicity.

"3. The liability to act epidemically, in the same way as I have previously mentioned, in past ages."

He notes some causes of suicide, as shown by published tables from London:

	Men.	Women.
Poverty	905	511
Domestic grief	728	524
Reverse of fortune	322	283
Drunkenness and misconduct	287	208
Gambling	155	141
Dishonor and calumny	125	95
Grief from love	95	157
Disappointed ambition	122	410
Wounded self-love	53	53
Envy and jealousy	94	53
Remorse	49	37
Fanaticism	16	1
Misanthropy	3	3
Causes unknown	1,381	377
Total	4,335	2,853

He considers at length the causes most potent and frequent in producing such mental and physical conditions as lead to self-destruction. He puts at the head, "remorse." Among women at the English hospitals, he places at the head, "unrequited and disappointed love." Next, he regards "jealousy" as a frequent cause of insanity and suicide. "Political excitement" is given a prominent place, and he states in this connection, that "in despotic countries suicide and insanity are seldom heard of." In republican governments the greatest latitude is allowed to the turbulent passions; all mankind are theoretically placed on an equality; the man 'whose talk is of bullocks' considers himself as fit to carry on the complicated business of government as he whose education, associations and experience tend to qualify him for the duties of a legislator." Political "revolutions" are a frequent cause; as is also "visceral derangement." He gives especial prominence to the "hereditary character of suicides," and cites many instances. "False pride," "climate" and special "seasons" exert an influence that is well recognized.

Relative to religious belief, he says: "M. Falset justly remarks that the religious systems of the Druids, Odin, and Mahommed, by inspiring a contempt for death, have made many suicides. The man who believes that death is an eternal sleep scorns to hold up against calamity, and prefers annihilation. The skeptic, also, often flees himself, by self-destruction, from the agony of doubting. The maxim of the Stoics, that the man should live only so long as he ought, not so long as he is able, is, we may observe, the very best parent of suicide. The Brahmin, looking upon death as the very entrance into life, and thinking a natural death dishonorable, is eager at all times to get rid of life."

We believe, from a careful observation of this subject for many years, that the best preventive of suicide is a firm, consistent and practical belief in Christianity.—*Iowa Health Bulletin.*

THERAPEUTICS.

Consumption and Marriage.

The *Medical Press* of April 10, 1895, has an interesting editorial on the advisability of intermarriage of consumptives:

The question as to the responsibilities incurred by the marriage of persons having a history of hereditary phthisis has lately been forced upon the attention of the public by a breach of promise action in the law courts. Into the merits of that particular case we do not propose to enter, but at the same time a brief review of some of the broader aspects of the situation can hardly fail to be of interest to the medical readers. One of the points advanced in the recent trial was the distinction between acquired and inherent phthisis. No doubt there is considerable difference betwixt the two conditions. In the one case the phthisis supervenes on chronic bronchitis, emphysema, or other long-continued inflammatory lung trouble, and may be spoken of as accidental. Still, the fact of the occurrence of such a complication is in itself strongly suggestive of predisposition, and which might be revealed by a careful study of ancestral and collated family history. In the second case, that of inherited phthisis, we have to deal with a disease in which heredity is a strongly marked and essential feature. Dr. Thompson found that out of 3,000 consecutive cases among males, taken from Brompton Hospital Records, *thirty-six per cent. had a family history of phthisis, while out of a similar number of female cases, fifty-eight per cent. had such a history.* Whatever the scientific explanation of the fact may be, there

can be no doubt whatever as to the importance of hereditary predisposition in the determination of tubercular disease, In any scheme for the stamping out of phthisis, the question of the marriage of individuals springing from infected stock must occupy a prominent position. It is a mere commonplace of every-day discussion to say that people who suffer from syphilis, consumption, insanity, or other inherited disease, have no business to marry. Nay, many philosophers go much further than that, and hold that the State should step in and forbid such marriages altogether. Without endorsing so extreme a view, it may be remarked that the State is so far directly concerned that it has provided for the degenerate offspring of such marriages. The modern view of tubercular disease, the curse of northern climates, is that it is a preventable condition. Having arrived at that conclusion, the next nut for the sanitarian to crack is presented in the pregnant query: "If preventable, why not prevent?" Certainly the proposition that marriages between persons of phthisical history should be prevented by law has never yet entered into the sphere of practical politics. It is quite possible that with more extended views as to the responsibility of the individual to society he may one day be forbidden to bring diseased offspring into the community. In the case lately brought before the law courts, it is somewhat unfortunate that the issues were obscured by personal matters, so that no satisfactory legal opinion could be gained as to how far the concealment or misrepresrntation of family history as regards consumption might be held to warrant a breach of contract to marry. In commenting upon the case some of the newspapers have said that the defendant, to have been within the law, should have made his promise of marriage conditional upon the absence of phthisis in the lady's family. We doubt if such a course would be found possible even to the most case-hardened and unemotional lawyer. One thing is certain, namely, that the future preventive treatment of phthisis, no less than of insanity, must, to a great extent, depend upon the restriction of the marriage of persons predisposed to those conditions. Before any particular step can be taken in such a direction, however, the principal will have to be accepted and indorsed by the administration of our law. It is probable that a few generations hence our society and philosophy will have so far advanced as to make the existence of any serious hereditary taint perfectly good ground for breaking off a contract to marry, but as things go, it is not impossible that before that time both phthisis and actions for breach of promise of marriage will have vanished off the face of the earth.

Hydrochloric Acid in Stomach Affections.

The action of hydrochloric acid is two-fold, eupeptic and antifermentative. Under the former indication, a writer in the *Journal des Practiciens*, says: The acid is to be used in chronic inflammations of the stomach, in cancer of that organ, in pyrexias, in pulmonary tuberculosis and in a word in all those conditions which diminish the digestive power of the gastric juice. Two strengths are useful, 2 grams in 500 of water, and 3 grams in 300 of water. The former can be used in a wineglass dose at the end of half an hour after meals, the latter, a tablespoonful in half a glass of tepid water at the end of a meal. The acid is contra-indicated in round ulcer in dyspepsias with hyperesthesia and neuropathies. It should not be used for more than three weeks or a month, and then after omitting for a fortnight use again as before. As an antiseptic this acid has given good results in those cases of abnormal fermentations with pyrosis, due to the formation of organic acids, in dilatation of the stomach, etc. When used antiseptically, the acid should be given outside of the periods of digestion, *i. e.*, a few hours after meals.—*Western Druggist.*

Mentholated Chloroform for Colds.

Wunsche found menthol, dissolved in chloroform, to be the most efficacious of all remedies. A solution of one to two parts of menthol in twenty parts of chloroform will not only arrest the progress of a cold in its initial stage, but is also an excellent influenza prophylactic. From four to six drops of the solution should be placed in the hollow of the hand, quickly rubbed between the hands, the two hands tightly pressed together, placed before the face, and the remedy energetically inhaled alternately through the nose and the mouth. It will be immediately noticed that the volatile parts of the solution thoroughly impregnate the mucous membranes of the nose, mouth and throat, and even penetrate deep down into the air-passage. During the first two or three inhalations the sweetish chloroform-vapor predominates, afterward, however, only menthol, in an attenuated condition, is inhaled, odor and feeling remaining apparent for some time after the inhalation. As a rule, the first inhalation suffices to cure the severest tendency to sneezing, and often to arrest the progress of the cold altogether. Two further applications of the remedy in the course of the day suffice to repress the attack completely. The first inhalation at first slightly increases the flow from the mucous membrane of the nose; afterward, however, this symptom diminishes quickly. Pains in the pharynx and larynx may be quickly eased, and often entirely cured by the remedy. When, a few months ago, the influenza made its reappearance, I preserved myself and my family from the epidemic by means of chloroform-menthol inhalations, and this in spite of the fact that I was brought in frequent contact with sufferers from influenza, and that I had fallen a victim to the complaint in every previous occasion of its appearance. A small vial, containing about 5.0 grams of chloroform and from 0.3 to 0.5 grams of menthol should be kept as a cheap and reliable remedy in every household.—*Therapeutische Monatshefte.*

PATHOLOGY.

Effusion and Absorption.

Hamburger (*Virchow's Archiv*, August 5, 1895) points out the part that limitation of absorption plays in the production of passive effusions. The process of absorption is not a vital but a purely physical process; all tissues, living and dead alike, can take up a certain amount of fluid by imbibition, either molecular, where the fluid is taken up by a homogeneous mass—for example,

gelatine—or capillary, where the fluid is taken up by the pores of a porous mass—for example, porcelain, or connective tissue. Given fluid in a pleural cavity, the cement substance between the cells, or even the cells themselves, take it up by molecular imbibition; then, by capillary imbibition it is drawn into the connective tissue, and thus reaches the lymph stream. This process, however, ceases unless the fluid thus drawn up be quickly taken into the blood stream and carried away, for a limited quantity of tissue can take up only a limited quantity of fluid at a time. It is well known that quickening of the blood stream favors absorption, and it is the slowing of the blood stream, which by its purely physical effect in limiting absorption is an important factor in the causation of passive effusion.

A Test for Distinguishing between Serous Exudations and Simple Transudations.

Rivalta (*Bif. Med.*, April 24, 1895) finds that if a drop of glacial acetic acid is added to a serous exudate (that is, an inflammatory effusion) a slight white cloud forms in the wake of the falling drop, which precipitate redissolves on the addition of more acid. No such reaction takes place in mere transudation, that is, non-inflammatory fluids. A good way of doing the test is to let fall a drop of the suspected fluid into 200,400 c.cm. of distilled water, acidulated with two to four drops of glacial acetic acid. If the fluid is an inflammatory exudate, a whitish streak follows the falling drop, and on the addition of more acid, is dissolved. Examination of the precipitate shows that it belongs to the class of nucleo-albumins. The author's method presents a clinical advantage, in that a mere drop or two of the fluid (such as can easily be withdrawn with a hypodermic syringe) suffices to provide material for the test.

Calf's Pancreas in Pancreatic Diabetes.

At the French Congress of Internal Medicine recently held at Bordeaux (*Sem. Méd.*, August 21st), Ausset stated that he had given to dogs from which the pancreas had been completely extirpated—as proved by *post-mortem* examination—calf's pancreas lightly cooked and mixed with the animal's food. The glyclosuria caused by the operation always disappeared as soon as the treatment was begun, and this effect lasted as long as the administration of pancreas was continued. The treatment was tried in a diabetic man passing thirty-eight g. of sugar in the twenty-four hours, with more than double the normal elimination of chlorides and phosphates, loss of strength, etc. On the second day of the treatment the amount of sugar fell to four g. and the quantity of salts eliminated became normal. On the ninth day the sugar had wholly disappeared and the urine remained normal for more than a month.

NEWS AND MISCELLANY.

Dr. George Dock, at present Professor of Practice of Medicine and Pathology in the University of Michigan, Ann Arbor, has been elected Professor of Pathology and Bacteriology in the Jefferson Medical College.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM DECEMBER 29, 1895, TO JANUARY 4, 1896:

The leave of absence on surgeon's certificate of disability granted Major James C. Worthington, surgeon, is extended six months on account of sickness.

OFFICIAL LIST OF THE CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE SIXTEEN DAYS ENDED DECEMBER 31, 1895:

H. R. Carter, surgeon, granted leave of absence for twelve days, December 17, 1895.

L. L. Williams, P. A. surgeon, granted leave of absence for fifteen days, December 30, 1895.

W. P. McIntosh, P. A. surgeon, to proceed from Boston, Mass., to Louisville, Ky., and assume command of service, December 28, 1895.

B. W. Brown, P. A. surgeon, granted leave of absence for nine days, December 17, 1895.

Emil Prochazki, assistant surgeon, to proceed from Buffalo, N. Y., to Detroit, Mich., for duty, December 28, 1895.

A. R. Thomas, assistant surgeon, to proceed from St. Louis, Mo., to Boston, Mass., for duty, December 28, 1895.

H. S. Cumming, assistant surgeon, granted leave of absence for sixteen days, December 16, 1895. Leave of absence extended four days, December 26, 1895.

BOARDS CONVENED.

Board to revise regulations regarding uniforms. Surgeon Fairfax Irwin (Chairman), P. A. Surgeon C. E. Banks and P. A. Surgeon B. W. Brown (Recorder), December 17, 1895.

Board for the examination of officers for promotion, and candidates for admission to the service, to meet in Washington, D. C., February 10, 1896. Surgeon George Purveance (Chairman), Surgeon H. W. Austin and Surgeon H. R. Carter (Recorder), December 30, 1895.